MINISTRY OF NATURAL RESOURCES

Wingham District

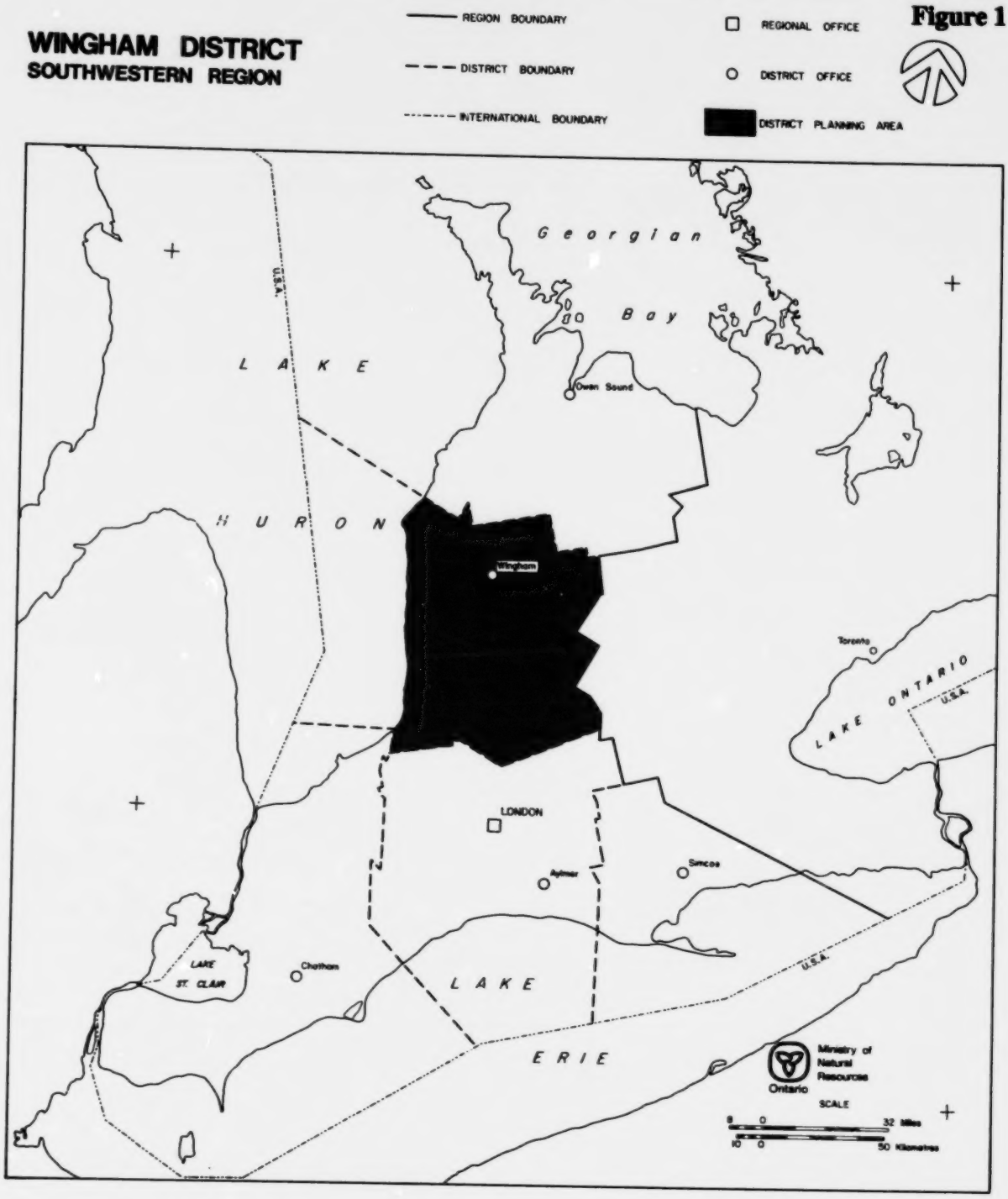
LAND USE GUIDELINES

Ontario
Ministry of Natural Resources
Hon. Alan W. Pope
Minister
W. T. Foster
Deputy Minister

1983

Figure 1

WINGHAM DISTRICT
SOUTHWESTERN REGION



FOREWORD

The Ministry of Natural Resources has a primary responsibility for the management of the province's natural resources, in particular those related to resource development and outdoor recreation.

This document will serve as the overall design for integrated resource development in Wingham District. It is also intended to provide others with an understanding of the ministry's mandate and its programs which rely on both Crown and private lands for success.

To ensure an integrated approach the *Wingham District Land Use Guidelines* identify where and in what manner the ministry may use Crown land, and to what extent it may wish to suggest uses of private land, in working towards the achievement of ministry objectives.

For Crown land the ministry must consider the land and water requirements for both its own programs and those of other government agencies. This will require ongoing liaison with these other agencies. The ministry will continue to consult with private landowners and local municipalities since the latter have the responsibility for control of private land use.

The program targets and approaches outlined in this document follow the overall direction outlined in the ministry's *Southern Ontario Co-ordinated Program Strategy.* The *Land Use Guidelines* may serve as one of the sources of information for ministry involvement in the planning process of municipalities and other agencies. It is recognized, however, that this document has no legal status.

Planning is a continuous process and must be responsive to changing needs, information and technology. Thus the targets and guidelines presented in this document are subject to revision based on such factors as changes in government policy, new or refined resource information, and significant changes to land use in other planning documents. To accommodate changes the *Land Use Guidelines* will normally be reviewed every ten years and will involve full public consultation.

Comments may be addressed to the District Manager at any time.

Regional Director
Southwestern Region

J. L. Hamill

District Manager
Wingham District

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1. PURPOSE OF THE DOCUMENT

The goal of the Ministry of Natural Resources is: to provide opportunities for outdoor recreation and resource development for the continuous social and economic benefit of the people of Ontario and to administer, protect and conserve public lands and water.

In order that its land management, outdoor recreation, and resource products programs might better achieve that goal, the ministry has developed an integrated set of guidelines. These are comprised of reports for the province, for southern, northeastern, and northwestern planning regions, and for the ministry's forty-seven administrative districts, which state in broad and comprehensive terms how the ministry wishes to use, or influence the use of lands and waters.

The ministry's direction for southern Ontario was published in April 1982 after public review of earlier drafts. That document, *Southern Ontario Co-ordinated Program Strategy*, provides the basis for the policies, targets, and guidelines which are being adopted by each district in southern Ontario.

The purpose of the *Land Use Guidelines* is to define the policies, targets, and guidelines that Wingham District may adopt in order to achieve its contribution to the targets in the *Coordinated Program Strategy*. This document identifies what the ministry hopes to achieve locally through cooperative efforts within the ministry, and with conservation authorities, municipalities, other agencies, interest groups, and landowners. More specifically, this document outlines:

- general policies and program policies to be pursued by the ministry in Wingham District;
- quantitative targets for each program;
- the land and water areas which could contribute to target achievement;
- guidelines for policy implementation, including how the ministry hopes to work with conservation authorities, municipalities, and individual landowners; and
- how ministry programs could be integrated.

In this document, targets have been developed for ministry programs to 2000 (2020 for forest resources). These targets should provide a basis for measuring the degree of achievement of certain ministry program policies. It is not intended that all targets be achieved immediately. The intent is to aim for target achievement over the next 20 years (40 years for the forestry program).

A number of factors may affect the extent to which targets are achieved, including:

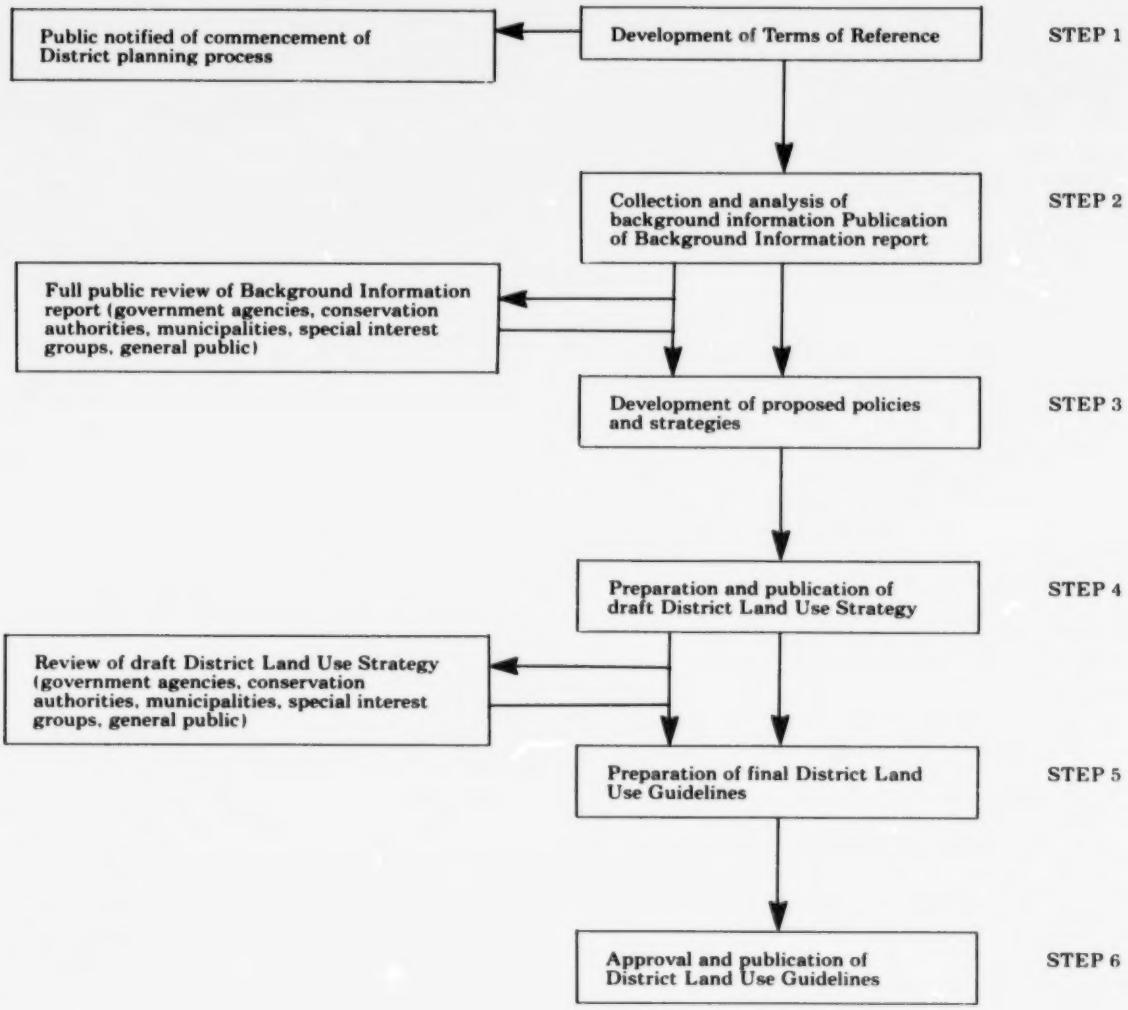
- deficiencies in the original information and assumptions on which the targets were based;
- new or improved information or analysis which could result in changes in the original assumptions and conclusions;
- changes in economic and social conditions, whether at a local or provincial level; and
- provision by the Legislature of levels of staff and funds differing from those required for the levels of resource management on which the targets are predicated.

The *Land Use Guidelines* may best be viewed as a working paper which will be subject to considerable monitoring and review as it is applied.

Wingham District is one of five administrative districts in the ministry's Southwestern Region (Figure 1). The district includes all of Huron and Perth Counties, Huron, Kinloss, Culross, and Carrick Townships in Bruce County, and Minto Township in Wellington County. Also included are the offshore waters of Lake Huron as far as the international boundary. There are 32 townships in the district, and a total of 54 local municipalities when the City of Stratford, towns, and villages are included. The district's 141,000 residents all live in communities of 10,000 or less, Stratford excepted.

The total area of the district is 10,258 square kilometres (3,961 square miles), including 6,813 square kilometres (2,631 square miles) of mainland and 3,445 square kilometres (1,330 square miles) of Lake Huron. Of the district's land area,

FIGURE 2 WINGHAM DISTRICT LAND USE GUIDELINES:
THE PLANNING PROCESS


Development of Terms of Reference
STEP 1
Public notified of commencement of District planning process
Collection and analysis of background information Publication of Background Information report
STEP 2
Full public review of Background Information report (government agencies, conservation authorities, municipalities, special interest groups, general public)
Development of proposed policies and strategies
STEP 3
Preparation and publication of draft District Land Use Strategy
STEP 4
Review of draft District Land Use Strategy (government agencies, conservation authorities, municipalities, special interest groups, general public)
Preparation of final District Land Use Guidelines
STEP 5
Approval and publication of District Land Use Guidelines
STEP 6

96 percent is privately owned. Farms account for almost all the private land area, and agriculture is the district's number one resource industry. Only 1.3 percent of the district's land area is publicly owned for natural resource management purposes (Crown lands, conservation authority lands and agreement forests, and county forests). However, 13 percent of the district's area is private land not committed to agricultural clearing or urban uses. These private lands include most of the district's forests, wetlands, and shorelands, and will be the focus for ministry and landowner cooperation in resource management.

The emphasis of the Ministry of Natural Resources *Land Use Guidelines* in Wingham District (and in southwestern Ontario generally) must therefore be on influencing the use of, rather than actually using, the land base. This will require close cooperation between the Ministry of Natural Resources on the one hand, and other ministries, conservation authorities, municipalities, interest groups, and private landowners on the other. The ministry does not intend to usurp the recognized role of municipalities in land use planning, or to duplicate the planning processes which have been carried out by counties and local municipalities; planning control over private land is the responsibility of municipalities under authority of the *Planning Act*. Rather, the ministry wishes to encourage outdoor recreation and resource development through its input to plan review and approval, and as well, to coordinate its own programs, manage its own lands and waters, and carry out its own limited regulatory responsibilities with respect to private lands.

There may be instances when the ministry and other agencies or individuals will have different intentions for the same area. In such cases, the ministry will enter into negotiations to arrive at an acceptable solution.

As a first stage in developing *Land Use Guidelines* for Wingham District, the *Background Information* report was published in April 1980 and distributed to interested individuals, groups, and agencies throughout the district for review and comment. The purpose of the *Background Information* report was to provide the ministry and the public with the information necessary for the development and assessment of policies, targets, and strategies for ministry programs in the district. The next stage involved publication of a draft *Wingham District Land Use Strategy* in June 1982. This document, and a tabloid summarizing its contents, were again widely distributed for review and comment. All comments received on this draft strategy, and the ministry's response to the issues raised, are available for review in the Wingham District office, in the public reading room at the ministry's main office in Toronto, and at the Legislative Library at Queen's Park. The public consultation program followed throughout the planning process is described in detail in the Appendix.

The present document contains the *Wingham District Land Use Guidelines* which reflect public discussion of the draft report mentioned above. Section I.2 provides further information on the purpose of and the approach taken in this document.

Figure 2 shows the planning process followed by Wingham District in developing the *Land Use Guidelines*. The planning program shown in Figure 2 was carried out over the period 1979 to 1983.

Wingham District retained the consulting firm of Hough, Stansbury + Michalski Limited to coordinate the development of the *District Land Use Strategy*. Hough, Stansbury + Michalski Limited prepared the 1980 *Background Information* report and the June 1982 *Draft Land Use Strategy* in cooperation with Wingham District staff. and also contributed to the preparation of these approved district guidelines.

2. INTRODUCTION TO THE GENERAL AND PROGRAM POLICIES AND GUIDELINES

The ministry's land use guidelines for southern Ontario, *Southern Ontario Co-ordinated Program Strategy*, provides the basis for the policies, targets, and guidelines in this document. The *Coordinated Program Strategy* outlines ministry policies, program targets, and guidelines necessary to achieve those policies and targets, for southern Ontario. Policies and strategies only are provided for four general areas of concern to the ministry: integrated resource management, public safety, environment, and energy. Policies, quantitative targets, and strategies are provided for eight specific ministry programs: forestry, mineral aggregate, minerals and fossil fuels, fisheries, wildlife, provincial parks, general recreation, and land administration. The *Land Use Guidelines* for Wingham District is organized in a similar way. General policies and guidelines are dealt with in Part II of this document, and specific program policies, targets and guidelines in Part III.

Throughout Part III of this document, the specific policies of each area of concern or program are presented individually, as:

Objectives These sections consist of the ministry's Southern Ontario Objectives for the area of concern or program in question, quoted from *Southern Ontario Co-ordinated Program Strategy.*

Targets The section on district targets provide the quantitative targets for each ministry program in Wingham District; no targets are provided for the general areas of concern.

Discussion Each program target has been evaluated in terms of the known capabilities and existing and anticipated use characteristics of the resource in the district. The information presented in the discussion sections is intended to demonstrate the extent to which the targets can be achieved.

Implementation Strategy These sections enumerate the guidelines which the ministry intends to use in Wingham District in implementing the policies and land use guidelines for programs, and the policies for areas of concern.

Land Use Strategy These sections enumerate the land use guidelines which the ministry intends to use in Wingham District in working towards achievement of the district targets. These guidelines outline where within the district efforts to achieve the targets will be concentrated.

Resource considerations often dictate variation by area in the ministry's advisory, educational, and management efforts, and participation in the municipal planning process. These variations in efforts are intended to increase the efficiency with which the ministry will be able to work with other public agencies and private landowners towards achievement of the district policies and targets. The area guidelines also serve to clarify why ministry resource management efforts are not always uniform across the district and may appear to be inconsistent to the casual observer.

For the purposes of formulating area guidelines, Wingham District has been divided into four general resource areas (Figure 3), three inland areas (North, West Central, and South East) and one Great Lakes area (Lake Huron). The land areas are approximate only, but are based on basic differences in resource capabilities and resource use (including agricultural capability and use). For each program, any differences in land use and implementation guidelines for each of the three inland general resource areas are outlined. Differences in land use and implementation guidelines for the Lake Huron general resource area are referred to only for programs making use of this water base. Variations are not indicated for the general areas of concern.

Significant program areas These sections list specific land and water areas which the ministry has identified as significant program areas. These areas are considered to be critical to the achievement of district policies and targets for each program and for the public safety area of concern. All of the significant program areas, except those for the public safety area of concern (lands susceptible to flooding and erosion), are shown on Figures 4 through 9 in Part III, and are summarized in Table 1 in Section I.

It should be noted that the concept of significant program areas is a new one which has been developed since the *Background Information* report was published in April 1980. Consequently, the significant program areas identified in this document supersede the sensitive areas and special features identified in the *Background Information* report. Sensitive areas and special features, unlike significant program areas, were not defined using strict criteria as to their importance to ministry programs in Wingham District. The list of significant program areas will be subject to continuing review and amendment as policies are refined and new knowledge on the district's natural resource base comes to light.

Integrated resource management strategy These sections enumerate the guidelines which the ministry plans to use in Wingham District to help ensure that the general directions to be taken in each program complement the directions to be taken in other programs and in the public safety area of concern. In order to ensure that natural resource management is as efficient as possible, these guidelines outline:

- how public lands set aside for natural resource management purposes will, wherever appropriate, serve to achieve more than one program objective simultaneously and, where suitable, sequentially;
- how potential conflicts over use of the same lands for more than one program objective may be dealt with; and
- how each program should help relate to and contribute to or accommodate the objectives of other programs and the public safety area of concern.

Conservation Authority contributions to the District Land Use Guidelines These sections summarize how conservation authorities can contribute to the achievement of the policy and

targets for each ministry program in the district (land administration excepted).

Municipal contributions to the District Land Use Guidelines The concluding sections summarize how municipalities can contribute to the achievement of the policy and targets for each ministry program in the district (land administration excepted).

3. SUMMARY OF THE DISTRICT LAND USE GUIDELINES

Table 1 summarizes the district's targets discussed in this document. For each general area of concern to the ministry and specific ministry program, the table compares these targets with present and potential output, indicates the public and private land and water areas in the district which will help contribute to target achievement, and specifies the significant program areas critical to ministry efforts.

Figures 3 through 8 in Part III show for each program (general recreation and land administration excepted) the extent of the ministry's present involvement in the district's land and water base. The areas shown on these maps include significant program areas, as well as other areas in which the ministry has significant resource interests. These areas will provide a starting point for achieving the targets of the *Land Use Guidelines*. The General Resource Areas map inserted in this document highlights the important aspects of the *Land Use Guidelines* by combining all significant program areas (except for those for the public safety area of concern) with boundaries and brief descriptions of the general resource areas.

TABLE 1 SUMMARY OF TARGETS: WINGHAM DISTRICT

	How much?			Where from?		
	Target	Present	Potential	Lands and waters contributing to target		Significant program areas
				Public	Private	
General Policies and Strategies						
Integrated Resource Management	No target	—	—	Entire District		None
Public Safety	No target	—	—	Entire District		All stream and river floodplains All shoreline areas which would be flooded with an expected average frequency of once in 100 years All lands susceptible to erosion
Environment	No target	—	—	Entire District		None
Energy	No target	—	—	Entire District		None
Program Policies and Strategies						
Forest Resources						
• Net merchantable wood (excluding fuelwood)	116,000 cubic metres (4.1 million cubic feet) per year	Unknown	201,000 cubic metres (7.1 million cubic feet) per year from existing production forests with high intensity management	Conservation authority and county agreement forests: 4,600 ha (11,300 acres) but not all is production forest Total current production forest area: 57,000 ha (140,000 acres)	Privately owned production forest	All county and conservation authority agreement forests
• Fuelwood	No target	Unknown	Unknown	Conservation authority and county agreement forests Total current forest land area: 80,000 ha (199,000 acres)	Privately owned forest land	
Mineral Aggregate Resources	93 million tonnes (103 million tons) of aggregate supply for 1982-2000	432 million tonnes (477 million tons) in currently licenced areas	2,541 million tonnes (2,802 million tons) or more	Aggregate resource areas where compatibles with public lands/waters purposes	Aggregate resource areas	All high potential aggregate resource areas

Non-Aggregate Mineral and Fossil Fuel Resources						
• Salt	No target	1.6 million tonnes (1.8 million tons) In 1981	Near infinite	Non-aggregate mineral and fossil fuel resource areas where compatible with public lands/ waters purposes	Non-aggregate mineral and fossil fuel resource areas	None
• Oil	No target	149 cubic metres (936 barrels) in 1980 (Tipperary field only)	Under investigation			
• Gas	No target	583,200 cubic metres (20.6 million cubic feet) in 1980	Under investigation			
Sports Fisheries	137,300 sports fishing opportunities per year	119,600 sports fishing occasions per year	137,300 sports fishing opportunities per year given realistically attainable net improvement in accessible fisheries resource	Lake Huron Inland streams and lakes	Stocked ponds Inland streams and lakes	Maitland River, from Wingham to Lake Huron Bayfield River, from Clinton to Lake Huron Bannockburn River from Kippen to Bayfield River Teeswater River, from Teeswater to Culross-Greenock township line North Thames River, from Mitchell to Perth-Middlesex county line All streams critical to cold-water angling species
Commercial Fisheries	400,000 kilograms (880,000 pounds) of fish per year (Statistical District 4 only)	379,000 kilograms (835,000 pounds) of fish per year, 1977-81 average (Statistical District 4 only)	397,700 kilograms (877,200 pounds) of fish per year (Statistical District 4 only)	Lake Huron		
Bait Fisheries	148,500 dozen bait fish per year	120,000 dozen bait fish per year, 1978-81 average	267,000 dozen bait fish per year (total potential)	Inland streams	Inland streams	

TABLE 1 (continued)

	How much?			Where from?		
	Target	Present	Potential	Lands and waters contributing to target		Significant program areas
				Public	Private	
Deer Hunting	3,000 deer hunting opportunities per year	1,748 deer hunting occasions per year, 1980-81 average (Huron County only)	8,100 deer hunting opportunities per year (total potential)	Deer habitat areas, excluding Point Farms Provincial Park	Deer habitat areas	
Small Game Hunting	62,600 small game hunting opportunities per year	small game hunting occasions per year, 1978-80 average	Unknown	Small game habitat areas	Small game habitat areas	Hullett Wildlife Management Area
Waterfowl Hunting	15,800 waterfowl hunting opportunities per year	waterfowl hunting occasions per year, 1978-80 average	Unknown	Hullett Wildlife Management Area and other waterfowl habitat areas	Waterfowl habitat areas	Deer yard and wetlands, Ellice Swamp Deer yards and wetlands, Gads Hill Swamp
Fur Production	36,000 pelts per year	37,564 pelts per year, 1978-79 to 1981-82 average	Unknown	Furbearer habitat areas, excluding Point Farms Provincial Park	Furbearer habitat areas	Deer yard and wetlands, Hay Swamp
Nonconsumptive Uses of Wildlife						
• Wildlife viewing	Target not yet developed	Unknown	Unknown	Hullett Wildlife Management Area and other quality viewing areas	Quality viewing areas	Deer yard and wetlands, Saratoga Swamp
• Endangered wildlife species	Nil	No known habitat in District for species currently designated		—	—	Deer yard and wetlands, Greenock Swamp
Wilderness Parks	Nil	None	No suitable areas in District	—	—	
• Earth science features	23 significant features	23 significant features		Earth science features Total identified earth science areas: 14,700 hectares (32,500 acres)	Earth science features	
• Life science features	9 significant features	9 significant features		Life science features Total identified life science areas: 5,400 hectares (13,500 acres)	Life science features	
Historical Parks	Target not yet developed	4 themes known to be represented in Point Farms Park	Unknown	Areas of provincial significance Areas not yet identified	Areas of provincial significance Areas not yet identified	Point Farms Provincial Park

						All earth and life science features.
Natural Environment Parks	1 per site district most suitably represented by Wingham District	None	Under Investigation	—	—	
Waterway Parks	Nil	None	No suitable areas in District			
Recreation Parks						
• Swimming	219,600 swimming opportunities per year	296,000 swimming opportunities provided per year	296,000 swimming opportunities per year at Point Farms			
• Picnicking	59,300 picnicking opportunities per year	28,000 picnicking opportunities provided per year	39,000 picnicking opportunities per year at Point Farms	Point Farms Provincial Park		
• Developed camping	96,200 camping opportunities per year	47,000 camping opportunities provided per year	77,000 camping opportunities per year at Point Farms			
General Recreation	No target	Unknown	Unknown	Crown beaches Lake Huron Maitland River below Wingham Bayfield River below Seaforth Public sector recreation areas	Private sector recreation areas	None
Land Administration	No target	—	—	Entire District		All Crown lands

A: integrated resource management

1. POLICY STATEMENT

Programs will be integrated to ensure the efficient use of land and water to achieve ministry objectives.

2. STRATEGY

Every effort will be made to ensure that each ministry program contributes to or accommodates the objectives of other programs (see integrated resource management strategies under each program in Part III, and Table 3 in Part IV).

Wherever appropriate, public lands set aside for natural resource management purposes may serve to achieve more than one program objective simultaneously and, where suitable, sequentially (see integrated resource management guidelines under each program in Part III, and Table 3 in Part IV).

The ministry plans to continue to provide the public with information on the nature, extent, use, and management of the natural resource base of Wingham District. Particular emphasis will be given to information which will further public appreciation and landowner management of natural resources.

The ministry will continue to communicate with other federal, provincial, and municipal agencies to ensure that ministry programs and actions in Wingham District complement and reinforce those of other agencies to the greatest extent possible. Every reasonable effort will be made to accommodate the interests of other agencies should conflicts arise between the ministry and other agencies over use of the same lands.

The ministry will seek to integrate watershed management planning currently being undertaken by conservation authorities with its own strategic planning program.

B: public safety

1. POLICY STATEMENTS

The ministry will seek to eliminate loss of life and to minimize property damage and community disruption resulting from floods, erosion, earth slippage and forest fires.

The ministry will seek to eliminate injury and loss of life from hazards around abandoned pits, quarries and mine shafts and from abandoned oil and gas wells.

The ministry will promote the safe pursuit of outdoor recreation and resource production activities.

2. STRATEGY

The ministry will encourage new development to avoid areas susceptible to flooding, erosion, and earth slippage, or occurs only with adequate protection and safeguards. Such areas are:

- stream floodplains, which include "floodways", defined as the area which would be flooded with an expected average frequency of once in 100 years, and "flood fringes", defined as the additional area which would be flooded by a storm of the intensity of Hurricane Hazel (1954);
- shoreline areas which would be flooded with an expected average frequency of once in 100 years, including an allowance for wave uprush;
- lands susceptible to erosion, which include stream banks and Lake Huron shorelands which are expected to erode over the next 100 years; and
- lands prone to shifting, slumping, and sinking due to soil type, condition, and moisture content. It is recognized that certain communities in Wingham District have urban core business districts within floodways. Variation from provincial standards may be required to ensure continued community viability. The municipalities affected may develop special policies for their stream floodways for the approval of the Ministries of Natural Resources and Municipal Affairs and Housing and the appropriate conservation authority.

The ministry will continue to assist conservation authorities in encouraging member municipalities to adopt and implement flood and fill line regulations, and will continue to support conservation authorities in providing erosion and flood protection through remedial works.

The ministry plans to ensure that erosion control measures on Crown shorelands initiated by approved adjacent private landowners are developed with due respect for the environment and the interests of other adjacent landowners.

The ministry will, in its capacity as lead Ontario Government agency for flood and forest fire emergencies:

- maintain up to date flood and forest fire emergency plans for Wingham District;
- encourage the municipalities outside of conservation authority jurisdiction (Huron, Ripley) to prepare and maintain up to date local flood and emergency plans; and
- assist conservation authorities in encouraging member municipalities to develop local flood emergency plans.

The ministry plans to, in conjunction with the Ministry of Labour, continue to inspect abandoned pits, quarries, mine shafts, and oil and gas wells, and ensure that appropriate actions are taken to minimize hazards to the public.

3. SIGNIFICANT PROGRAM AREAS

The following significant program areas are considered to be important to implementing the proposed public safety policy and guidelines:

- All stream floodplains, as defined in Section 2;
- All shoreline areas which would be flooded with an expected average frequency of once in 100 years; and
- All lands susceptible to erosion, which include stream banks and Lake Huron shorelands which are expected to erode over the next 100 years.

C: environment

1. POLICY STATEMENT

The ministry will conduct its activities in an environmentally responsible manner.

2. STRATEGY

Renewable resources should be managed on a biologically sound basis involving wherever possible the management of entire plant and animal communities rather than single species.

The ministry plans to encourage the management of nonrenewable resources to meet current demands,

with attention given to anticipated future needs. This will include encouragement of more efficient end use practices which will reduce resource depletion; for example, recycling of materials, substitution of lower quality materials where they will suffice, and substitution of alternative materials.

The ministry plans to work closely with conservation authorities and municipalities to promote water conservation and watershed management, including reforestation where necessary in headwater areas and in areas of unstable or erosion prone soils.

The ministry plans to work closely with the Ministry of Agriculture and Food, conservation authorities, municipalities, and landowners to promote agricultural practices which help to conserve natural resources. Special attention will be paid to the promotion of practices which help to prevent soil erosion by wind and water, and maintain forest cover, hedgerow and streambank vegetation, and high quality streams. Special attention will also be paid to land drainage schemes and the promotion of mitigating measures in drainage works, so as to minimize the drainage of valuable wetlands, the reduction of water quality in streams, the channelization of streams offering quality fish habitat, and the removal of streambank vegatation. The ministry will continue to review proposed drainage works involving existing and former natural streams.

The ministry plans to encourage consideration of wetland values in municipal planning and the plans of other agencies.

The stability of Ontario's environment may have a significant effect on the extent to which ministry program targets can be achieved. There is widespread concern as to the potential effect of acid rain on the environment. In Wingham District, the greatest concern is with respect to the possible direct effect of acid rain on vegetation and crops. As well, acid rain could have some long term impact on water quality, though not comparable to that on inland waters on precambrian bedrock. The ministry plans to work closely with other government agencies to monitor the effect of acid rain and other contaminants on the achievement of ministry targets.

Although there are no known areas in the district providing habitat for any of the species designated under the *Endangered Species Act*, such areas may come to light in the future, or additional species may in future be designated under the *Act* which have habitats in the district. The ministry will endeavour to encourage municipalities to designate any such areas as areas of environmental significance in official plans.

The ministry plans to identify and through various mechanisms seek to conserve unique, representative, and endangered natural and cultural features on both public and private lands. It should recognize areas of natural and scientific interest in the management and implementation of its various programs.

In addition, a variety of approaches that may meet important environmental concerns as well as specific program objectives are described within the strategies for specific ministry programs in Part III of this document.

D: energy

1. POLICY STATEMENT

The ministry will undertake its activities so as to contribute to provincial energy objectives.

2. DISCUSSION

The provincial energy program targets are to supply by 1995:

- at least 22.5% of Ontario's energy consumption from nonrenewable (oil, gas, lignite, peat, uranium) resources within the province (the 1978 proportion was 10%);
- at least 15% of Ontario's energy consumption from renewable and recoverable resources including hydraulic resources (the 1978 proportion was 13%).

Energy production activities which may have land use impacts of concern to the ministry include use of hydraulic resources, use of forest resources, and extraction of peat and fossil fuels.

3. STRATEGY

The ministry intends to consider fuel (oil, gas, wood, and peat) potentials before making any permanent commitments of lands and resources to uses which exclude fuel production.

The installation of solar and wood heating systems at appropriate ministry facilities may be considered.

A comprehensive ministry energy action plan for Wingham District may be prepared.

In addition, approaches for attempting to achieve energy self-sufficiency as well as specific program objectives are described within the guidelines for specific ministry programs in Part III of this document.

A: forestry

1. OBJECTIVE

The objective for forestry is to provide for an optimum contribution to the economy of forest-based industries consistent with sound environmental practices, and to provide for other uses of the forest.

2. TARGETS

The forestry targets in Wingham District are:

- to produce an annual continuous supply of 116,000 cubic metres (4.1 million cubic feet) of wood for industrial purposes by the year 2020 while maintaining the present diversity of forest products; and
- to make the maximum contribution from forest production to the achievement of the provincial energy target. This is estimated to be 2 percent or more of total energy needs by the year 2000.

3. DISCUSSION

It is assumed that, for the foreseeable future, the district forest production target will have to be met from lands currently suitable for forest production. As outlined in the *Background Information* report (Section 6.2), an examination of 1966 and 1972 aerial photographs resulted in an estimate of 56,622 hectares (139,917 acres) of production forest in the district.

Although there are no data on actual timber harvests in the district, a current actual net merchantable volume of wood (net merchantable volume from current typical woodlots under current typical management) was estimated in the *Background Information* report, using different productivity standards for each forest type. This current actual net merchantable volume was estimated to be 96,000 cubic metres (3.36 million cubic feet) per year. Similarly, a potential net merchantable volume from existing production forest area (net merchantable volume from high quality woodlots under high intensity of management) was estimated at 201,000 cubic metres (7.10 million cubic feet) per year.

The existing area of production forest could be affected by changes in forest cover or by the designation of forest lands for other purposes. The trend in recent decades, as described in Section 6.2 of the *Background Information* report, has been for the area of productive (production plus protection) forest to remain relatively constant in the district as a whole. This pattern is not guaranteed to continue as agricultural economics and practices change. Also, forest lands could be designated for other resource management purposes in the future, principally aggregate extraction and parks and recreation.

The preceding information suggests that the forest production target assigned to the district of 116,000 cubic metres (4.1 million cubic feet) of net merchantable wood per year is achievable from existing production forest, given a moderate increase in woodlot quality and intensity of management, and minimal reductions in the area of production forest.

It would be possible to exceed the target through a greater increase in woodlot quality and intensity of management, and/or a significant increase in the area of production forest. In theory, more of the district's land area could be devoted to production forest in future without infringing on existing agricultural clearing or urban or transportation uses. In fact, much of the additional area theoretically available for production forest consists of sites with low capability for timber production, such as wetlands. On the other hand, there are significant areas of cleared agricultural lands which are not highly productive farmlands but would be suitable for reforestation. It appears, then, that the area of production forest in the district could be increased substantially from the present approximately 57,000 hectares (140,000 acres). However, this would take many years and a great deal of effort to bring about, and is not necessary in order to achieve the district forest production target. Should the demand for wood from the district increase beyond target levels,

though, the potential would be available to help meet those needs through measures to encourage expansion of production forest area as well as optimization of production forest quality and management. The latter approach, producing more wood from existing production forest through high intensity management, appears to be quite feasible. The district's excellent forest sites and forest growing capability offer considerable opportunities for wood production in excess of target levels, given sufficient management efforts.

While the target is expressed in volume of wood alone, the quality of the product cannot be ignored. Hardwoods and white pine will continue to be predominant in wood production and processing in Wingham District for the foreseeable future. High quality (freedom from defects), suitable dimensions, and an appropriate mix of species, are all important in the production and use of these valuable species. Considerable attention will have to be paid to these factors in meeting the target so that the district's forest resources can indeed make a meaningful contribution to the district's economy.

4. IMPLEMENTATION STRATEGY

The principal means of encouraging preservation of privately owned production forest involves measures designed to encourage retention of forest rather than to discourage or restrict competing uses. However, if a trend develops in future towards wholesale reduction of the area of production forest in the district, the ministry plans to urge municipalities to strengthen restrictions on the clearing of production forest. This could be done through designations in official plans, and stricter restrictions in and enforcement of county bylaws under *The Trees Act*.

Modest increases in the area of production forest in the district may be brought about in the long term through measures designed to encourage upgrading to productive forest of "wooded pasture" (shrublands and other inadequately stocked lands), and to promote planting on marginal and idle agricultural lands and on other cleared areas having a low capability for agricultural or other resource uses. At present, the ministry is planting about 450,000 trees or 300 hectares (750 acres) per year in the district. In the short and medium term, annual planting may rise to about 500,000 trees or 340 hectares (830 acres). Planting will continue to consist mainly of white pine which, though a softwood, is a high value species, and which can be planted economically and efficiently on cleared sites. In the long term, these white pine stands could evolve into hardwood forest. Planting will also continue to be carried out as an aid to soil and water conservation (see Section II.C).

A moderate increase in woodlot quality and intensity of management for merchantable wood may be achieved by:

- increased emphasis in advisory services and *Woodlands Improvement Act* agreements on producing timber of suitable quality, dimension, and species;
- increased efforts to promote the benefits of *Woodlands Improvement Act* agreements, particularly among farmers, who do not now participate in the program in the same proportion as other landowners;
- increased efforts to provide forest management advisory services to *Woodlands Improvement Act* agreement holders and other landowners; and
- a greater emphasis in *Woodlands Improvement Act* agreements and advisory services on improving management of existing woodlots relative to planting of cleared areas.

An increase in the economic attractiveness of and return from preserving and managing production forest may be achieved by:

- increased efforts to disseminate market information and facilitate market transactions, so as to help landowners obtain the best prices for their wood; and
- increased efforts to provide advisory services to present and potential small local wood using industries.

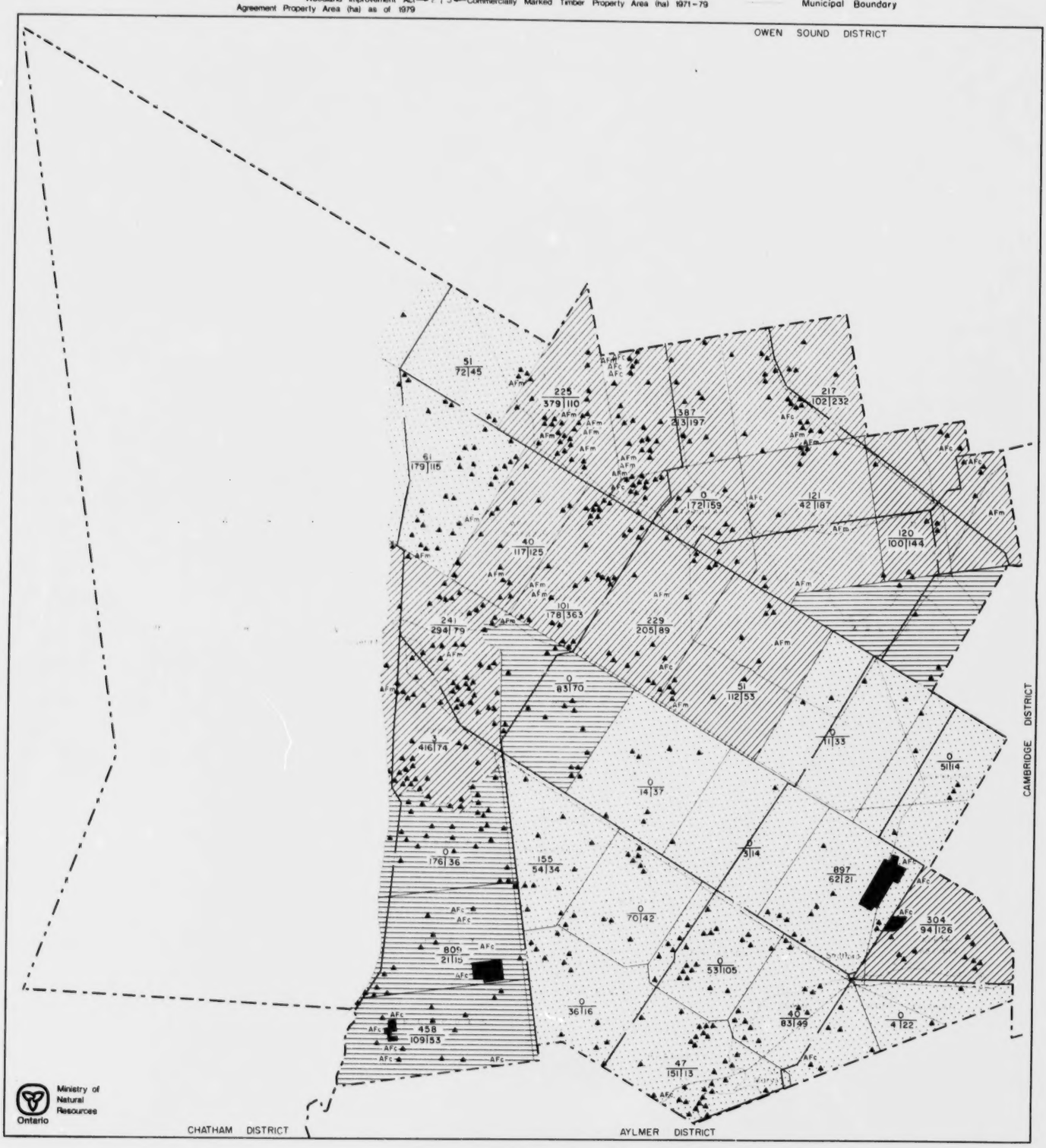
Greater production of fuelwood for the use of district residents may be encouraged by:

- increased emphasis in advisory services and *Woodlands Improvement Act* agreements on management for and production of fuelwood, including improved utilization of tops, limbs, etc., from merchantable trees, wherever appropriate;
- increased emphasis in management of county and conservation authority agreement and Crown land forests on fuelwood production where appropriate, including improved utilization of tops, limbs, etc., and increased efforts to make suitable stands, as well as tops, limbs, etc. from merchantable trees, available for fuelwood cutting by local residents; and
- provision of advice and assistance to landowners wishing to establish "cut your own" fuelwood operations, and development and dissemination to the public of a registry of landowners offering "cut your own" fuelwood.

None of the actions related to fuelwood should be taken at the expense of production or utilization

WINGHAM DISTRICT
FOREST RESOURCES PROGRAM

Figure 3



of merchantable sawtimber. The ministry plans to continue to encourage the highest and most profitable long term end use of the district's production forest.

Public awareness of the scenic and other amenity values of forests may be fostered by increased efforts to disseminate information on forest amenity values, and to ensure that these are considered in ministry forest management efforts on public and private lands.

Awareness in the agricultural community of the benefits to the agricultural economy of complementary forest management should be promoted through forest management advisory services and other means of disseminating information. The benefits to be emphasized may include:

- the economic benefits of reforestation of idle farmland, including the production of remunerative forest crops, and the provision of employment opportunities for farm families in local wood-using industries;
- the agricultural production benefits of maintenance of existing woodlots, reforestation of idle farmland, and planting of windbreaks, including the reduction of snow drifting, wind erosion of topsoil, and wind damage to crops, livestock, and farm buildings; and
- the agricultural energy benefits of maintenance of existing woodlots, reforestation of idle farmland, and planting of windbreaks, including the production of domestic fuelwood, the provision of potential biomass fuel sources, and the sheltering of farm buildings and consequent reduction of heating and cooling requirements.

5. LAND USE STRATEGY

The forest production target will be met in the short and medium term from the approximately 57,000 hectares (140,000 acres) of existing production forest in the district (Figure 4). The predominantly hardwood forests of the district can be expected to regenerate naturally given proper harvesting practices.

a. General Resource Area Guidelines

In order to reflect variations within the district in forest resource capabilities and use, the ministry will vary its guidelines by general resource area (see Figure 4).

(i) North Area The relatively high proportion of existing forest cover in the north area suggests the following variations:

- Preservation of forest cover to maintain the existing area of forested land will be encouraged; and
- The major emphasis in advisory services and *Woodlands Improvement Act* agreements will be on improving management of existing woodlots.

(ii) West Central Area The moderate proportion of existing forest cover in the west central area suggests the following variations:

- Preservation and expansion of forest cover to increase the area of forested land may be encouraged; and
- The emphasis in advisory services and *Woodlands Improvement Act* agreements may be on both reforesting idle farmland, including planting of windbreaks in exposed settings, and improving management of existing woodlots.

(iii) South East Area The low proportion of existing forest cover in the south east area, and the low demand expected for improvement of existing woodlots, suggest the following variations:

- The emphasis in ensuring the adequacy of the area of public and private forested land may be on encouraging both preservation and expansion of forest cover to increase the area of forested land;
- Emphasis in advisory services and *Woodlands Improvement Act* agreements may involve reforesting idle farmland, including planting of windbreaks; and
- The agricultural production and agricultural energy benefits of complementary forest management may be particularly stressed in this area of the district.

6. SIGNIFICANT PROGRAM AREAS

All county and conservation authority agreement forests in the district are significant program areas, considered to be important to the achievement of the forest resources policy and targets (Figure 4).

7. INTEGRATED RESOURCE MANAGEMENT STRATEGY

In order to ensure that the forest resources program is efficiently integrated with other programs and areas of concern, the ministry plans to use the following guidelines.

a. Public Safety

The ministry plans to encourage maintenance and expansion of forest cover on lands susceptible to flooding and erosion. Forest production is a compatible use of these lands, and forest cover helps to reduce erosion.

b. Mineral Aggregate Resources
Forest planting and management efforts normally will not occur on lands which have a high likelihood of being used for aggregate extraction over the next 60 years.

c. Fisheries
The ministry plans to encourage maintenance and expansion of forest cover along streams critical to prime angling species. Forest cover helps to maintain and enhance water and habitat quality essential to these species. The use of streams within county and conservation authority agreement and Crown land forests for sports fishing will continue to be encouraged.

d. Wildlife
The maintenance and expansion of ministry efforts to protect and manage production forest will likely enhance habitat conditions for most upland species of trapping, hunting, and viewing interest. Such activities as selective harvesting, thinning, pruning, and reforestation increase the quantity, quality, and variety of wildlife habitat. Efforts will be made to ensure that ministry forest management activities are compatible with and complement the maintenance and improvement of wildlife habitat. The use of county and conservation authority agreement and Crown land forests for trapping, hunting, and viewing will continue to be encouraged.

e. Provincial Parks
Any forest planting or management in significant earth and life science areas should be compatible with the maintenance of the quality and integrity of the features in question.

f. General Recreation
The use of county and conservation authority agreement and Crown land forests for low intensity recreation will continue to be encouraged.

8. CONSERVATION AUTHORITY CONTRIBUTIONS TO THE DISTRICT LAND USE GUIDELINES

Conservation authorities can contribute to the achievement of the forest resources policy and targets by:

- continuing to participate with the ministry in the agreement forest program;
- encouraging municipalities, where necessary, to strengthen and enforce county bylaws under *The Trees Act;*
- helping to foster public awareness of the scenic and other amenity values of forests; and
- helping to promote awareness in the agricultural community of the benefits to the agricultural economy of complementary forest management.

9. MUNICIPAL CONTRIBUTIONS TO THE DISTRICT LAND USE GUIDELINES

Municipalities can contribute to the achievement of the forest resources policy and targets by:

- continuing to participate with the ministry in the agreement forest program; and
- where necessary, protecting production forest by working with the ministry.

B: mineral aggregate

1. OBJECTIVE

The objective for mineral aggregate production in southern Ontario is to meet anticipated future demand with minimal disturbance to natural and cultural resources and the social environment.

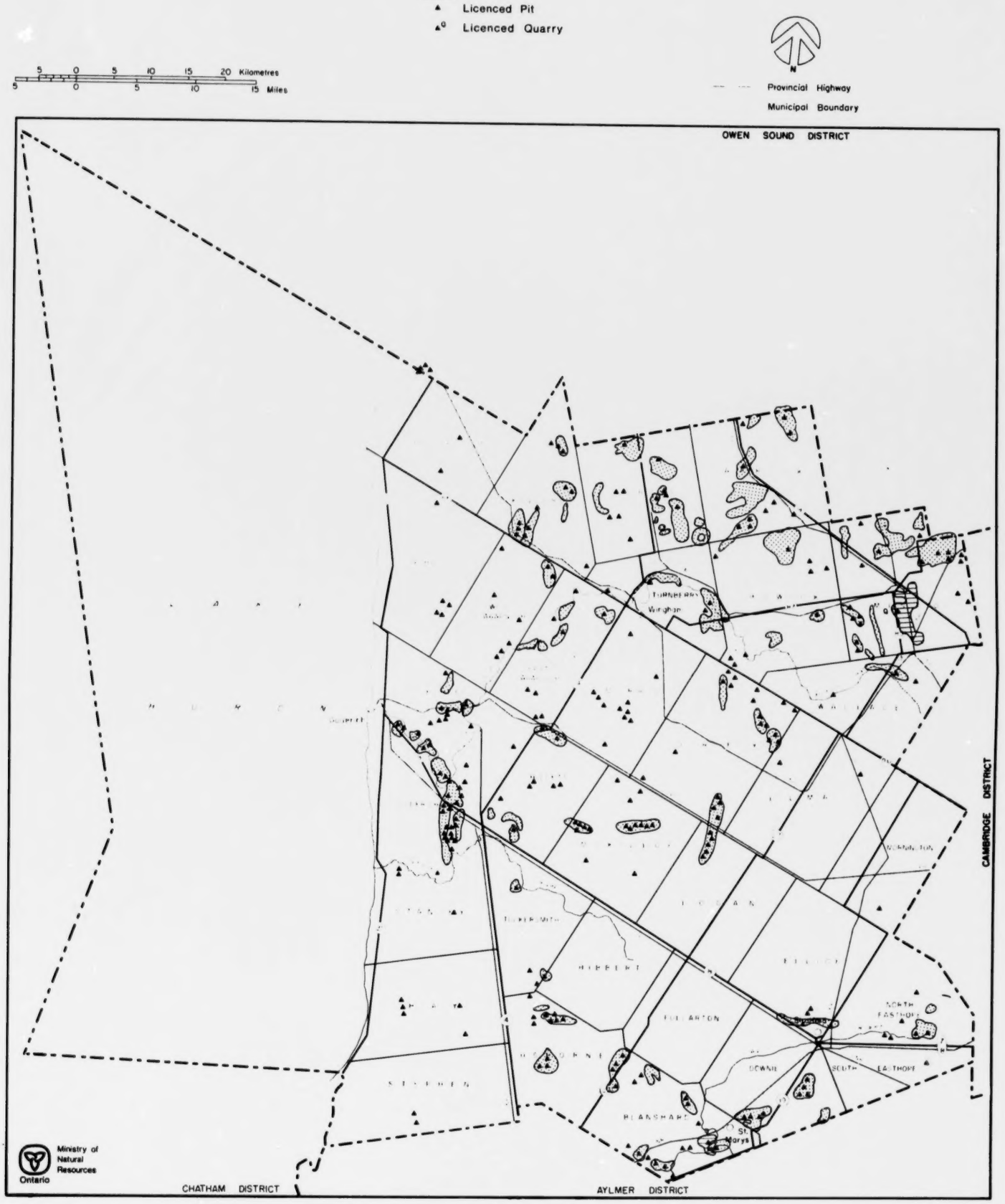
2. TARGET

The target for mineral aggregate production in Wingham District is to ensure a total cumulative supply of 93 million tonnes (103 million tons) for the period 1982 to 2000.

WINGHAM DISTRICT

MINERAL AGGREGATE RESOURCES PROGRAM

Figure 4



Note The Ministry is not seeking absolute protection of the total area identified on this map. Rather, it is only within the high potential area that the program will focus its efforts and will encourage land uses (such as agriculture and forestry) which do not preclude the future opportunity of aggregate extraction.
Sand and gravel resource areas shown are generalized. Crushable stone resources occur within the area but have not been indicated as this information is not yet fully inventoried.

3. DISCUSSION

Most of Wingham District has only recently been designated under *The Pits and Quarries Control Act*, and the first full set of annual production returns from licensed operators will become available during 1983. However, based on information provided in licence applications, it is estimated that total mineral aggregate (sand, gravel, and crushed stone) production averaged about 5.6 million tonnes (6.2 million tons) per year during 1979 and 1980. The 287 licensed pits and the various wayside pits in the district produced about 5.0 million tonnes (5.5 million tons) of sand and gravel, mainly for use in construction. The district's only quarry in St. Mary's produced about 600,000 tonnes (650,000 tons) of crushed stone, primarily for use in cement manufacture. In addition, about 280,000 tonnes (310,000 tons) of clay was extracted at St. Mary's for cement manufacture.

Since the June 1982 draft report was prepared, provisional estimates of the district's aggregate resources have been compiled, based on at least preliminary resource information for most of the district. It is estimated that the existing licensed pits and quarries have the potential to produce a total of about 357 million tonnes (394 million tons) of sand and gravel and 75 million tonnes (83 million tons) of crushed stone respectively within currently licensed areas. In addition, the district's high potential aggregate resource areas have been delineated. Ideally, high potential sand and gravel resource areas are 6 metres or greater in thickness, contain 35 percent or more gravel of which at least 20 percent is crushable, and are of a size and quality sufficient to sustain a commercial operation. Ideally, high potential stone resource areas are 18 metres or greater in thickness, are covered by less than 6 metres of overburden, contain crushable stone suitable for roads, concrete, asphalt, lime, or cement, and are of a size and quality sufficient to sustain a commercial operation. The high potential areas delineated in the district also include deposits of lesser size and lower quality in local areas where aggregate resources of ideal size and quality are lacking. It is estimated that high potential sand and gravel resource areas, excluding areas already licensed, have the potential to produce 1,405 million tonnes (1,549 million tons). The resource information currently available does not permit a corresponding comprehensive estimate of stone potential. However, it has been estimated that, in the two townships (Minto and Blanshard) for which definitive information is available, high potential stone resource areas have the potential to produce 704 million tonnes (776 million tons).

The preceding information suggests that the district's target is achievable from existing licensed areas, since these appear to have a potential of over four times the volume of the target.

It will, however, be necessary for the ministry to seek to maintain the resource potential of aggregate resources. There is no guarantee that all existing operators will maintain their licences or their production volumes. As for currently unlicensed high potential aggregate resource areas, geological, economic, social, and land use planning constraints generally mean that the actual mass of aggregate which can be removed is well below physical potential. Also, mineral aggregate is a nonrenewable resource. Demand for aggregate will not cease in 2000. While it would not be reasonable to make specific projections beyond that date, it will be necessary to identify high potential resource areas which include sites with the best potential to meet needs beyond 2000, and to encourage land uses in these areas which would not preclude extraction at some future date.

It must be emphasized that protection does not necessarily mean extraction. Protection means only preservation of the option of possible future extraction. The actual amount of aggregate that will be extracted in the district in future will, as at present, depend on actual local and southern Ontario demand levels, a wide variety of physical, economic, and social constraints, and municipal planning priorities and decisions. It can also be expected that, at least until 2000, the bulk of the mineral aggregate production target can be met from existing licensed areas and from wayside pits.

4. IMPLEMENTATION STRATEGY

The ministry plans to participate in the municipal planning process so as to:

- assist municipalities in ensuring that existing aggregate extraction operations are not constrained as a result of the subsequent development of incompatible uses on adjacent lands;
- provide all necessary information to municipalities on aggregate resource areas, so that protection of these areas can be based on the most up to date qualitative and quantitative information available; and
- discourage uses of land which would preclude the possible future extraction of aggregate in high potential aggregate resource areas (discouraged uses would include residential, commercial, and industrial development, while permitted uses would include those adaptable to sequential use practices, in particular agriculture and forestry).

The ministry plans to:

- ensure that aggregate extraction activities are carried out in a manner which will minimize disturbance to the natural, cultural, and social environment;
- ensure that lands affected by extraction activities are rehabilitated, either through restoring the land to its former use or condition, or to another use or condition that is or will be compatible with the use of adjacent land; and
- ensure that progressive rehabilitation is carried out on a continuing basis throughout the period of extraction to the greatest extent possible.

5. LAND USE STRATEGY

The mineral aggregate production target may be met from the existing licensed pits and quarries, existing and future wayside pits, and future pits and quarries within high potential aggregate resource areas (see Figure 5).

a. General Resource Area Guidelines

In order to reflect variations within the district in mineral aggregate resource capabilities and use, the ministry may vary its guidelines by general resource area (Figure 5) as follows.

(i) North Area The abundant quantity and high quality of potential aggregate supplies relative to the demand for aggregate in the north area suggest the following variations in strategy:

- ensure the adequacy of aggregate supplies, principally on the identification and, where necessary, protection of high potential aggregates.

(ii) West Central Area The wide variation in quantity and quality of potential aggregate supplies relative to the demand for aggregate in the west central area suggests the following variations in strategy:

- ensure the adequacy of aggregate supplies, depending on the location in question. Where supplies are abundant in quantity and high in quality, emphasis may be on the identification and, where necessary, protection of high potential aggregate resource areas. Where the quantity and quality of supplies are deficient, emphasis may be placed on areas of lesser potential as well.

(iii) South East Area The very limited potential aggregate supplies relative to demand for aggregate in the south east area suggest the following variations in strategy:

- ensure the adequacy of aggregate supplies, the identification and, where necessary, protection of all aggregate resource areas, whether of high or lesser potential.

6. SIGNIFICANT PROGRAM AREAS

All high potential aggregate resource areas in the district are significant program areas, considered to be important to the achievement of the mineral aggregate resources policy and targets (see Figure 5). As outlined in Section 3, these areas are in excess of anticipated requirements to 2000. The ministry is not seeking absolute protection of all the high potential resource areas shown on Figure 5. Rather, it is within these general areas that such extraction and rehabilitation as do occur will likely take place, and that land uses which would not preclude extraction at some future date will be encouraged.

7. INTEGRATED RESOURCE MANAGEMENT STRATEGY

a. Forest Resources

In cases where the removal of production forest is required to permit aggregate extraction, the ministry plans to encourage aggregate producers to use, first, sites where timber is mature or nearing maturity for economic harvesting, and, later, sites where timber is immature but has good future potential. The ministry plans to encourage the highest and most profitable end use of forest cover overlying mineral aggregate resources in cases where timber must be removed to permit aggregate extraction. Reforestation will be encouraged in rehabilitation plans where it is felt that site capability after extraction would be most suitable for forest production.

b. Fisheries

The ministry plans to ensure that aggregate extraction activities have no detrimental effect on waters critical to prime angling or commercial species. Development of stocked pond (put and take) fisheries will be encouraged in rehabilitation plans where it is felt that pits or quarries would be most suitable for stocked ponds after extraction.

c. Wildlife

The ministry plans to make every effort to ensure that aggregate extraction activities have no detrimental effect on the wildlife values of areas significant to the wildlife program.

d. Provincial Parks

The ministry plans to make every effort to ensure that aggregate extraction activities have no detrimental effect on the quality and integrity of significant earth and life science features.

8. CONSERVATION AUTHORITY CONTRIBUTIONS TO THE DISTRICT LAND USE GUIDELINES

Conservation authorities can contribute to the achievement of the mineral aggregate resources policy and targets by permitting extraction in aggregate resource areas within authority lands, to the extent that this can be done without impairing the conservation purposes of the lands in question.

9. MUNICIPAL CONTRIBUTIONS TO THE DISTRICT LAND USE GUIDELINES

Municipalities can contribute to the achievement of the mineral aggregate resources policy and targets by:

- identifying aggregate resource areas, and protecting future aggregate supplies; and
- encouraging sequential use practices, and discouraging uses which would preclude possible future extraction.

C: minerals and fossil fuels

1. OBJECTIVE

The objective for minerals and fossil fuels is to provide for a strengthening of the contribution of these resources to provincial economic development and energy production.

2. TARGETS

The target for mineral resources is to keep open as much land as possible for mineral exploration and development.

The target for oil and gas is to encourage as much exploration and production as possible to maximize their contribution to provincial energy needs.

3. DISCUSSION

Specific targets have not been developed for non-aggregate mineral or fossil fuel production at the district level because of difficulties in predicting market trends and assessing resource potentials (Figure 6) and because actual production is primarily a responsibility of the private sector.

a. Salt

In 1981, about 1.5 million tonnes (1.7 million tons) of salt were produced from the mine at Goderich, and an additional 100,000 tonnes (110,000 tons) approximately of salt were produced from the nearby brine wells. Annual mine production is expected to rise to about 2.9 million tonnes (3.2 million tons) as a result of capacity expansion currently under way. As well, an additional brine well is now being developed. The exploitable salt deposits in the Goderich area are believed to have a lifetime of several thousand years at present rates of production. Other potentially exploitable salt deposits occur in silurian formations which lie beneath the western portion of the district's land area.

b. Other Minerals

No other non-aggregate mineral resources have been identified as being commercially exploitable at present. However, lead and zinc sulphides and gypsum occur in formations which lie beneath the entire district. The ministry is currently evaluating the non-aggregate mineral resources of southwestern Ontario.

c. Fossil Fuels

There are two producing petroleum fields in the district at present. A total of 149 cubic metres (936 barrels) of oil and 583,200 cubic metres (20.6 million cubic feet) of gas was produced from the Tipperary field in 1980. Production from the Grand Bend field totalled 4,267 cubic metres (26,839 barrels) of oil in 1980, but most of this field lies within Chatham District. In addition, there are four inactive gas fields, and four gas discovery wells outside fields, in Wingham District. Reliable estimates of the district's known recoverable oil and gas reserves are not now available, but programs to evaluate Ontario's oil and gas reserves, and southwestern Ontario's oil

shale potentials, are currently under way. Technological advances have increased the recoverability of oil and gas, and silurian, ordovician, and cambrian bedrock formations beneath both the land and Lake Huron areas of the district are now considered to have good oil, oil shale, and gas potentials.

Peat, which may be used as fuel, occurs in a number of deposits throughout the district.

4. IMPLEMENTATION STRATEGY

Exploration of potential oil and gas bearing deposits, and optimum production consistent with good engineering principles from existing oil and gas reservoirs, will be encouraged throughout the district.

The ministry will not redesignate existing public lands, or buy new public lands, for purposes incompatible with mining or petroleum exploration and extraction without first evaluating petroleum and non-aggregate mineral potentials.

The ministry plans to participate in the municipal planning process and:

- assist municipalities in ensuring that existing mining and petroleum operations are not constrained as a result of the subsequent development of incompatible uses on adjacent lands;
- provide all necessary information to municipalities on potentially exploitable non-aggregate mineral deposits and oil and gas reserves, so that designation and protection of these areas can be based on the most up to date qualitative and quantitative information available;
- ensure that uses of land which would preclude possible future exploration for minerals or fossil fuels, mining of known potentially exploitable deposits, or oil or gas recovery from known potentially exploitable reserves, are not permitted.

The ministry plans to ensure that exploration and extraction are carried out in a manner which will minimize disturbance to the natural, cultural, and social environment and provide adequate safeguards against hazards to the public.

5. LAND USE STRATEGY

The ministry will not vary non-aggregate mineral and fossil fuel resources strategies by inland general resource area. In the Lake Huron area, oil and gas exploration and development is subject to limitations agreed to between Canada and the United States.

6. SIGNIFICANT PROGRAM AREAS

No significant program areas have yet been identified as being critical to the achievement of the non-aggregate mineal and fossil fuel resources policy and targets. However, Figure 6 shows areas of particular interest to this program.

7. INTEGRATED RESOURCE MANAGEMENT STRATEGY

a. Forest Resources

Mining and oil and gas exploration and development will in most cases not have any significant impact on production forest in Wingham District. However, there may be some situations where the removal of production forest is required. In those cases, the ministry plans to encourage operators of exploration and development programs to use, first, sites where timber is mature or nearing maturity for economic harvesting, and, later, sites where timber is immature but has good future economic potential. The ministry plans to encourage the highest and most profitable end use of forest cover overlying non-aggregate mineral resources and oil and gas deposits in cases where timber must be removed.

b. Fisheries

The ministry plans to make every effort to ensure that mining and oil and gas exploration and development have no detrimental effect on waters critical to prime angling or commercial species.

c. Wildlife

The ministry plans to make every effort to ensure that mining and oil and gas exploration and development have no detrimental effect on the wildlife values of areas significant to the wildlife program.

d. Provincial Parks

The ministry plans to make every effort to ensure that mining and oil and gas exploration and development have no detrimental effect on the quality and integrity of significant earth and life science features.

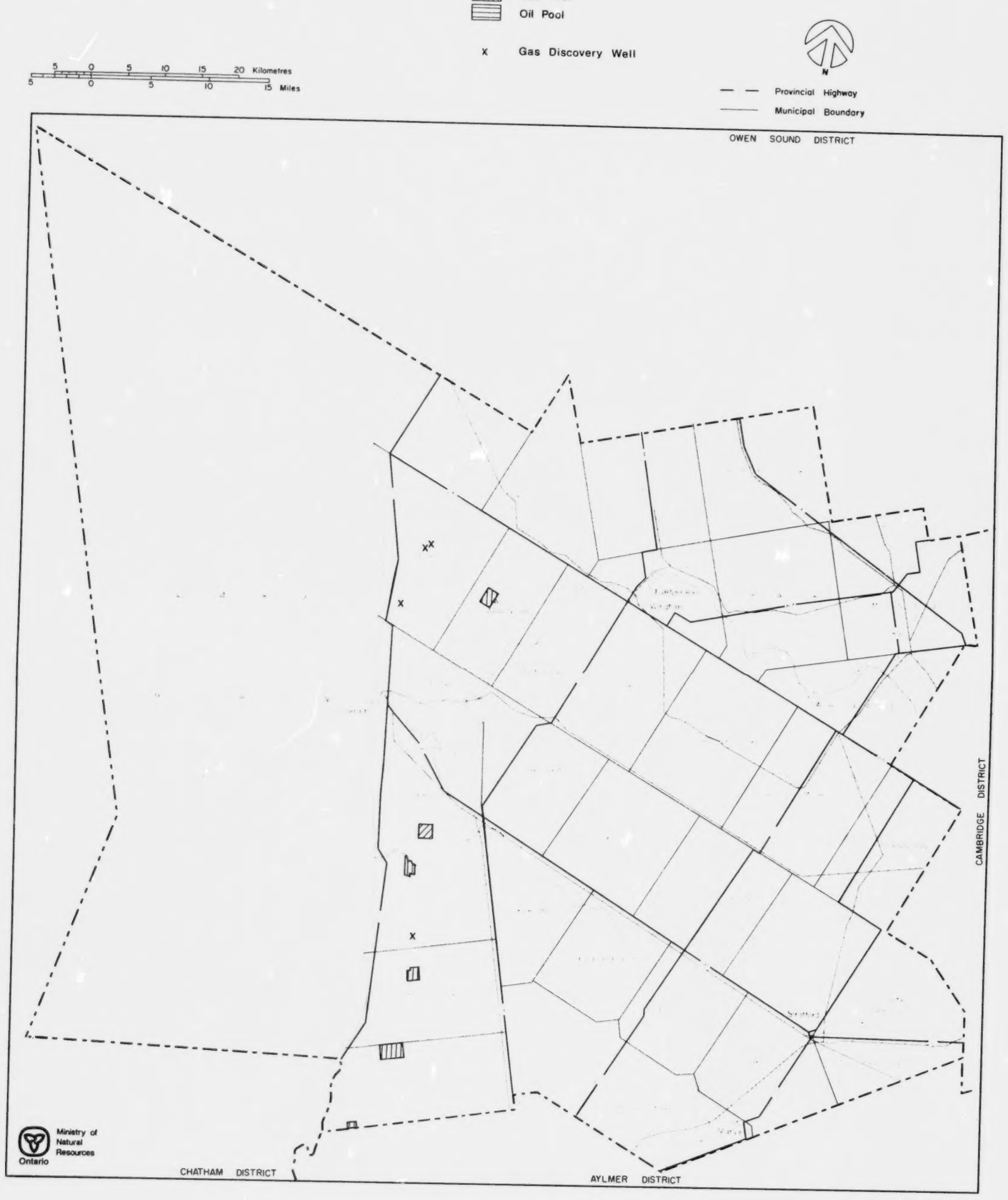
8. CONSERVATION AUTHORITY CONTRIBUTIONS TO THE DISTRICT LAND USE GUIDELINES

Conservation authorities can contribute to the achievement of the non-aggregate mineral and

WINGHAM DISTRICT

FOSSIL FUELS PROGRAM

Figure 5



fossil fuel resources policy and targets by permitting exploration and extraction on authority lands to the extent that this can be done without impairing the conservation purposes of the lands in question. (Conservation authorities are not permitted to exploit any oil or gas rights which they may own).

9. MUNICIPAL CONTRIBUTIONS TO THE DISTRICT LAND USE GUIDELINES

Municipalities can contribute to the achievement of the non-aggregate mineral and fossil fuel resources policy and targets by:

- encouraging sequential use practices where appropriate, and discouraging uses which would preclude possible future extraction on lands overlying known, potentially exploitable non-aggregate mineral deposits and oil and gas reserves.

D: fisheries

1. OBJECTIVES

The objective for fisheries management in southern Ontario is to provide opportunities for recreation and economic benefits consistent with the maintenance of healthy fish communities.

More specific objectives are:

Sport Fishing
- to meet demand within the limits of a wisely managed and rehabilitated resource;

Commercial Fishing
- to maintain a viable industry;

Bait Fishing
- to maintain current production; and

Provincially Rare and Endangered Species
- to prevent the extinction of any native species.

2. TARGETS

The targets for fisheries in Wingham District are:

Sport Fishing
- to provide 137,300 recreation opportunities annually by the year 2000.

Commercial Fishing
- to provide 400,000 kilograms (880,000 pounds) of fish annually by the year 2000;

Bait Fishing
- to provide 148,500 dozen fish annually from natural sources.

Provincially Rare and Endangered Species
- to ensure no native fish species becomes extinct.

3. SPORTS FISHERIES

a. Discussion

Since the *Background Information* report was prepared, improved fisheries productivity estimates for district streams, and new estimates for Lake Huron and inland lakes and ponds, have been developed.

Potential yields of resident (non-migratory) fish from the district's streams were estimated by classifying the streams into three types, and estimating the fish productivity per unit of area which may be expected in Southwestern Region for each type of stream. The potential yields were then broken down into estimated bait fish and sports fish portions on the basis of Southwestern Region experience. District streams have the potential to produce 28,200 kilograms (62,200 pounds) of sports fish per year, migratory fish excluded. This estimate of potential yields assumes that habitat quality is not significantly degraded for the type of stream in question.

Potential yields of fish from natural inland lakes, all of which are coolwater, have been estimated to produce 3,300 kilograms (7,300 pounds) of fish per year.

Ponds stocked by the ministry in Wingham District, all of which are coldwater, are estimated to produce 1,000 kilograms (2,300 pounds) of coldwater fish per year.

Biologically allowable annual yields of prime angling fish from the Statistical District 4 portion of Lake Huron (which includes most, but not all, of Wingham District waters) include fish resident in Lake Huron and fish migrating between the lake and inland streams, and are estimated as follows:

	Annual sustainable yield	
	kilograms	pounds
Coldwater		
Rainbow and brown trout	14,100	31,000
Coolwater		
Smallmouth bass	5,400	12,000
Yellow perch	136,100	300,000
Yellow pickerel	6,100	13,500

The trout and smallmouth bass yields are legally only available to the sports fishery. However, much of the yellow perch and yellow pickerel yields are shared with the commercial fishery (see Section 4a.) since, apart from coastal waters, Lake Huron is beyond the reach of small boats. It is estimated that 33,700 kilograms (74,400 pounds) of fish are taken annually by sports fishermen from the Statistical District 4 portion of Lake Huron.

In addition, there are two dip netting fisheries along the shore of Lake Huron which involve species not considered to be prime sports fish. District fish and wildlife staff estimate that dip netting for smelt accounts for about 17,000 kilograms (37,500 pounds) of fish per year. In 1982, dip netting for migratory sucker at the mouths of streams emptying into Lake Huron was permitted for the first time; no harvest information is yet available.

The district's fisheries have a biological potential to produce a sports fishing harvest of 83,200 kilograms (183,700 pounds) per year, with the potential of providing 137,300 sports fishing opportunities per year on the basis of desired Southwestern Region sports fishing quality standards. If current success is maintained, the potential supply is in the order of 200,000 opportunities.

The district's current annual sports fish harvest is estimated to total 46,700 kilograms (103,100 pounds) per year, providing 119,600 sports fishing occasions per year.

The current sports fish harvest falls considerably short of biological potential. Achievement of the target is dependent upon several conditions. The habitat quality of many streams in the district is degraded. Most streams are not accessible to the public along much of their lengths. Access to Lake Huron is limited, and once on the lake, anglers are constrained from use of its full area by its size and frequent adverse weather conditions. The angler demand across southern Ontario for lake trout and other coldwater fish ultimately will exceed the capacity to produce. That situation currently exists in some areas. To mitigate this situation, coldwater fishery resources have to be protected, and where necessary, rehabilitated.

While it may not be possible to make full use of the district's biological potential for sports fish production, it is reasonable to assume that by 2000, improvements in the district's fisheries resource could increase inland resident coldwater, inland resident coolwater, and migratory and Lake Huron resident coldwater sports fishing harvests and occasions by about 10 percent. This would result in a harvest of about 50,000 kilograms (110,300 pounds) per year.

b. Implementation Strategy

Through advisory and extension services, the ministry plans to work closely with conservation authorities, municipalities, and landowners to increase efforts to rehabilitate streams critical to prime angling species.

The ministry plans to continue to stock rainbow and brook trout in managed ponds and streams. At present, the ministry is stocking about 6,000 catchable-sized trout per year in the district. Supplemental plants in natural waters will continue as determined necessary and feasible.

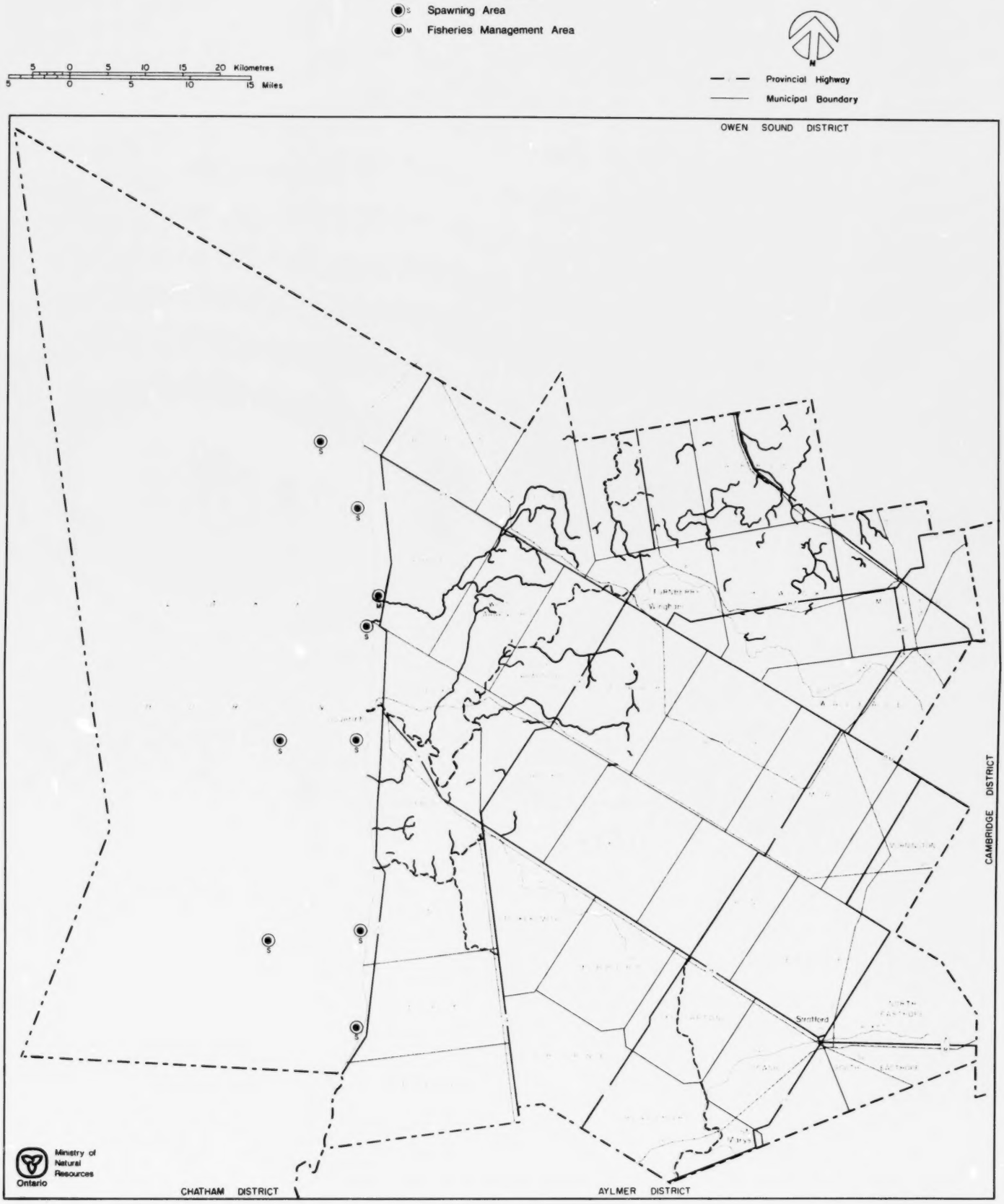
Efforts will be made to more accurately determine biologically allowable sports fish yields and sports fishing opportunities, and the nature and extent of current sports fishing activity, in the district. The results, now being tabulated, of a 1980 province-wide survey of sports fishing activity will be of considerable assistance here.

In cooperation with conservation authorities, municipalities, and landowners, the ministry plans to examine ways in which recreational access to inland and Lake Huron sports fisheries could be improved. Use of Point Farms Provincial Park for access to the Lake Huron sports fishery will be encouraged.

A district fisheries management plan will be prepared, dealing with both sports and commercial fisheries. Regarding sports fisheries, this plan may propose strategies which will increase sports fishing opportunities while ensuring that harvests remain within the long term productivity limitations of the fishery resource. Special attention may be paid to the recreational potential of species not now heavily used by sports fishermen.

WINGHAM DISTRICT FISHERIES PROGRAM

Figure 6



Note Only those portions of streams or rivers known to support coldwater fisheries are shown.

4. COMMERCIAL FISHERIES ON LAKE HURON

a. Discussion

Data on commercial harvests have historically been collected by statistical districts which do not correspond with administrative districts. Lake Huron Statistical District 4 is bounded on the south by a line running west from Grand Bend, and on the north by a line running west from Point Clark. Thus, Statistical District 4 lies entirely within Wingham District and includes the majority, but not all, of Wingham District waters. Harvests in Wingham District waters but outside Statistical District 4 (that is, northwest of Point Clark) are relatively small, however.

Since the *Background Information* report was prepared, new estimates of biologically allowable annual yields have been developed for Lake Huron, and have been broken down by statistical district partly because past harvest data provide a basis for so doing. Biologically allowable annual commercial yields for Statistical District 4 are estimated as follows:

	Annual allowable commercial yield	
	kilograms	pounds
Lake whitefish	85,000	187,500
Round whitefish	700	1,500
Yellow perch	122,500	270,000
Yellow pickerel	5,500	12,200
Chub	12,200	27,000
Sturgeon	200	500
Catfish, bullhead	2,700	6,000
Carp	4,500	10,000
Sucker	68,000	150,000
Gizzard shad	27,200	60,000
Alewife, smelt	60,100	132,500
Freshwater drum	9,100	20,000
Total	397,700	877,200

(migratory and Lake Huron resident angling yields and current Lake Huron smelt harvests have been deducted).

Over the period 1977 to 1981, commercial harvests in Statistical District 4 ranged from a low of about 288,000 kilograms (634,000 pounds) in 1977, to a high of about 428,000 kilograms (944,000 pounds) in 1978, with an annual average of about 379,000 kilograms (835,000 pounds). The total biologically allowable yield has been exceeded in only two years, 1978 and 1981, and it would appear in general that total harvests are not significantly exceeding total yields in the long term. However, some prime species (chub and whitefish) have in recent years been harvested in excess of allowable yields, while other coarse species (sucker, shad, smelt, alewife, drum) have been significantly underharvested.

Due to the limitations of the data, a commercial fish production target can be set only for Statistical District 4 at the present time. Since the preceding information suggests that the target of 400,000 kilograms for Statistical District 4 is achievable as it approximately coincides with the total annual allowable commercial yield of 397,700 kilograms. While the target is expressed as a total for all commercial species, it will be essential to keep harvests of individual species within allowable yields for those species.

The target is for commercial fish production by 2000 and assumes rehabilitation of stressed or depleted species, balanced use of all species and communities on a sustained yield basis, and development of markets for and full utilization of currently underutilized coarse species. The length of time required to attain these conditions may dictate commercial harvests below target during the intervening period.

Commercial harvests are only now beginning to be tabulated on an administrative district basis under a new reporting system. As this information becomes available and is analyzed, the commercial fish production target for Statistical District 4 will be replaced by one for all Wingham District waters.

(i) Great Lakes Policy The Great Lakes and interconnecting waters, except Lake Michigan, are resources shared by the United States and Canada. Various agreements between the two countries covering the use of these water bodies have been ratified over the years, but the most important document directly related to fisheries management is the *Convention on Great Lakes Fisheries* (1955). This convention established the Great Lakes Fishery Commission and set forth its duties. Two major responsibilities of the Commission have been developing coordinated research and management programs with the findings used to recommend measures which would permit the maximum sustained productivity of fish stocks of common concern, and formulating and implementing a program to eradicate or minimize sea lamprey populations.

The role of the Commission expanded on June 17, 1981 with the formal adoption by Canada and the United States of the *Joint Strategic Plan for the Management of Great Lakes Fisheries.* Fisheries management plans for each lake will be formulated as a result of this new agreement. The initial responsibility for plan formulation will rest with the individual lake committees of the

Commission. Ontario is officially represented on each lake committee by the chairman of the corresponding Ministry of Natural Resources fisheries management committee for the Ontario portion of that lake.

Each ministry fisheries management committee is chaired by a deputy regional director, with members representing administrative regions and districts, fisheries assessment units, fisheries research stations, and the ministry's main office. The purpose of these lake committees is to ensure the unity of all fisheries activities by:

- coordinating regional and district management efforts to achieve targets,
- directing assessment unit programs,
- recommending research priorities, and
- recommending policies, targets, and legislation.

b. Implementation Strategy

- Spawning areas and other habitats critical to commercial species should be protected and, where necessary, restored.
- Licensees may be encouraged to experiment with selective fishing methods which might increase coarse fish harvest volumes and harvesting efficiencies without affecting stocks of prime sports or commercial species.
- The ministry plans to continue efforts to promote utilization of and markets for coarse fish species.
- The Lake Huron fisheries management committee intends to determine the biologically appropriate minimum sizes of harvestable fish of various species, and minimum mesh sizes currently in force will be adjusted to coincide with acceptable minimum fish sizes.
- A district fisheries management plan will be prepared, dealing with both sports and commercial fisheries. Regarding commercial fisheries, this plan may propose management strategies, possibly including quotas on certain species and allocation of licence areas for the exclusive use of individual fishermen which may maximize the economic return from commercial fish harvests while ensuring that harvests remain within the long term productivity limitations of the fishery resource.

5. BAIT FISHERIES ON INLAND WATERS

a. Discussion

It is estimated that streams in Wingham District have the potential to produce 40,100 kilograms (88,600 pounds) of bait fish, equivalent to 267,000 dozen, per year. This estimate of potential yields assumes that habitat quality is not significantly degraded for the types of streams in question.

Over the period 1978 to 1981, bait fish harvests in the district ranged from about 61,000 dozen in 1981 to about 158,000 dozen in 1980, with an annual average of about 120,000 dozen. Target achievement may be affected by two factors. The habitat quality of many streams in the district is degraded, and also, most streams are not accessible to the public along much of their lengths, as many private landowners do not allow bait fish harvesters access.

b. Implementation Strategy

- Research into the bait fish productivity of streams in Wingham District should be carried out so as to more accurately determine the productive potential of various sectors of the district.
- Improved information on bait fishing activity may be obtained by requiring licenced bait fishermen to provide more detailed information on harvest and efforts.
- Once adequate information has been collected, bait fish harvest licences may be reallocated, and, if necessary, quotas imposed, to ensure that harvest in each sector of the district is consistent with each sector's productive capacity.
- Pending the reallocation of licenses, the total number of licences issued may not be increased.
- Efforts should be made to minimize conflicts between bait fish harvesters and landowners through dissemination of information on bait fishing, and development of a recommended code of conduct for bait fish harvesters.

6. LAND USE STRATEGY (All fisheries)

- The sports fishing recreation target may be met from inland streams and lakes, stocked ponds, and Lake Huron (Figure 6). The emphasis should be on the maintenance and rehabilitation of streams critical to prime angling species. The greatest emphasis for rehabilitation will be on the Lucknow River and its tributaries. On the coldwater Lucknow system, stream resources are of good quality, and a fisheries management facility is already in place at Port Albert. The next greatest emphasis will be on the coolwater Maitland and Bayfield rivers and their coldwater tributaries.
- The commercial fish production target should be met from Lake Huron (Figure 6).
- Contributions to achievement of the bait fish production target should be provided by inland streams (Figure 6).

a. General Resource Area Guidelines
In order to reflect variations within the district in fisheries resource capabilities and use, the ministry will vary its guidelines by general resource area.

(i) North Area In the north area, the major emphasis in inland fisheries management strategies may be on maintaining and enhancing, and improving recreational access to, coldwater fisheries.

(ii) West Central Area In the west central area, the emphasis in inland fisheries management strategies may be on maintaining and enhancing, and improving recreational access to, coldwater fisheries, and on improving recreational access to coolwater fisheries.

(iii) South East Area In the south east area, the major emphasis in inland fisheries management strategies may be on improving recreational access to coolwater fisheries.

(iv) Lake Huron Area In the Lake Huron area, the fisheries management strategies to be pursued may consist of those directed at the commercial fishery as well as at the migratory and Lake Huron resident sports fishery.

7. SIGNIFICANT PROGRAM AREAS

The following significant program areas are considered to be critical to the achievement of the fisheries policies and targets (Figure 7):

- Lucknow River;
- Maitland River, from Wingham to Lake Huron (coolwater);
- Bayfield River, from Clinton to Lake Huron (coolwater);
- Bannockburn River, from Kippen to Bayfield River (coolwater);
- Teeswater River, from Teeswater to Culross-Greenock township line (coolwater); and
- North Thames River, from Mitchell to Perth-Middlesex county line (coolwater).

All streams critical to coldwater angling species, are shown on Figure 6.

8. INTEGRATED RESOURCE MANAGEMENT STRATEGY

a. Forest Resources
Expansion of ministry efforts to rehabilitate streams critical to prime angling species may include, by agreement with landowners, tree planting to maintain and improve water and habitat quality essential to these species. This should increase the area of production forest in the district.

b. Provincial Parks
Any fisheries habitat rehabilitation within significant earth and life science features should be compatible with the maintenance of the quality and integrity of the earth or life science features in question. Encouragement of use of Point Farms Provincial Park for access to the Lake Huron sports fishery will likely increase visitation to the park.

c. General Recreation
Improved sports fishing opportunities resulting from expansion of fisheries management and rehabilitation efforts will enhance the quality and attraction of outdoor recreation in the district:

9. CONSERVATION AUTHORITY CONTRIBUTIONS TO THE DISTRICT LAND USE GUIDELINES

Conservation authorities can contribute to the achievement of the fisheries policies and targets by:

- cooperating with the ministry in efforts to protect fisheries habitat;
- maintaining and increasing efforts, in cooperation with the ministry, to rehabilitate streams critical to prime angling species;
- continuing to make suitable ponds on authority lands available for rainbow and brook trout stocking; and
- maintaining and increasing efforts to provide recreational access through authority lands to inland and Lake Huron sports fisheries, and encouraging private landowners to also consider providing access.

10. MUNICIPAL CONTRIBUTIONS TO THE DISTRICT LAND USE GUIDELINES

Municipalities can contribute to the achievement of the fisheries policies and targets by:

- cooperating with the ministry in efforts to protect fisheries habitat;
- ensuring that all municipal roads, drainage works, and other municipal works affecting watercourses are constructed and managed so as to maintain and, where possible, enhance fisheries resource capabilities; and
- maintaining and increasing efforts to provide recreational access to inland and Lake Huron sports fisheries through municipal lands.

E: wildlife

1. OBJECTIVES

The objective for wildlife management in southern Ontario is to provide opportunities for social and economic benefits from wildlife recreation and fur harvest consistent with the maintenance of healthy wildlife populations.

More specific objectives are:

Hunting

- to provide opportunities sufficient to maintain the present rate of participation and quality of hunting by residents;
- to maintain the contribution to the economy of hunting by non-residents; and

Trapping

- to sustain the maximum yield from wild furbearer populations while maintaining the present diversity of fur types; and

Other Uses

- to prevent additional species from becoming endangered or threatened;
- to improve the status of existing endangered or threatened species with the objective of removing them from the endangered species list;
- to maintain populations of all wildlife species (both non-game and game) at levels sufficient to:
  - provide opportunities for recreational enjoyment, aesthetic appreciation, scientific investigation, and educational uses;
  - provide benefits from tourism;
  - ensure environmental quality and ecosystem integrity; and
  - ensure the safety of the public.

2. TARGETS

The targets for Wingham District are:

Hunting

- to provide by the year 2000, 81,400 opportunities of hunting recreation per annum, including 3,000 opportunities of big game hunting, 62,600 opportunities of small game hunting and 15,800 opportunities of waterfowl hunting

Trapping

- to manage populations of wild furbearers such that an average harvest of 36,000 pelts can be achieved by the year 2000 while maintaining present species diversity

Other Uses

- to ensure no wildlife species becomes extinct
- a target for wildlife viewing has not been included due to the difficulty of measuring this activity and of assessing the influence of management actions; and
- viewing targets will be defined through ongoing policy development and will be incorporated into the *Land Use Guidelines* at an appropriate opportunity.

3. DEER HUNTING

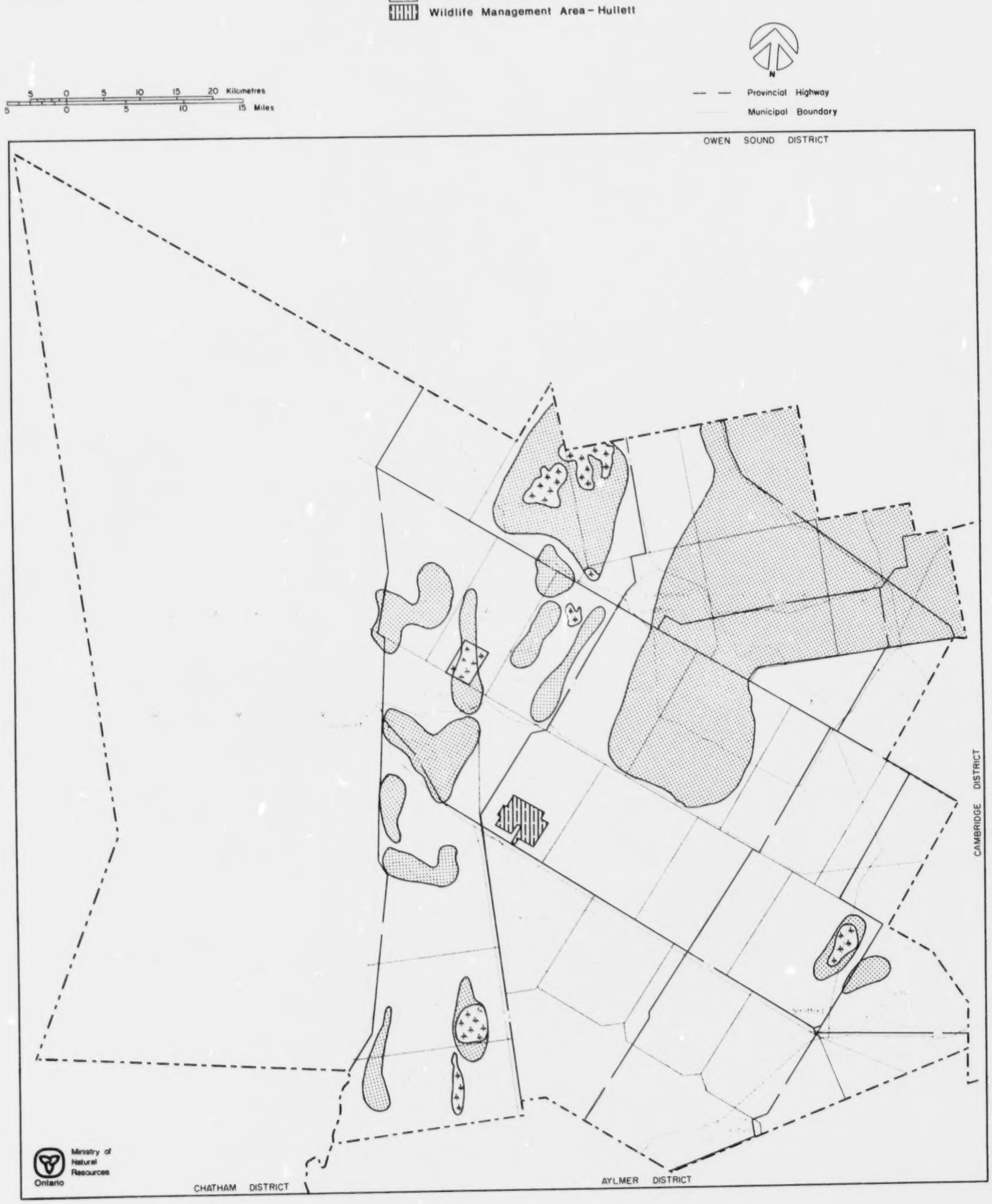
a. Discussion

The key habitat characteristic which can be used to estimate the potential deer population is the area of forested land. In 1978, it was estimated that there were 1,000 square kilometres (390 square miles) of forested land and wooded areas of apparent wildlife habitat in Wingham District. It has been determined that a reasonable deer density to expect in Southwestern Region is 3.9 deer per square kilometre (10 deer per square mile) of forest cover. This density would suggest that there are about 3,900 deer in the district (in the *Background Information* report, it was estimated that there were between 3,900 and 5,300 deer in the district). It has also been determined that annual harvests of 15 percent of the deer population would be biologically acceptable. In the last two district deer seasons involving hunting with guns for which hunting occasion data are available (1980 and 1981), an overall average of 13.8 hunting occasions took place per deer harvested. Applying these assumptions, an annual harvest of 585 deer could be achieved, providing about 8,100 deer hunting opportunities.

Actual harvests and hunting occasions have been much less than the target or potential in those recent years when deer hunting with guns has

WINGHAM DISTRICT
WILDLIFE PROGRAM

Figure 7



been permitted, and almost nil in those years when only hunting with bows has been permitted. Since 1980, there have been controlled hunts with guns in Huron County; Minto Township was included in the controlled hunt area in 1982. The 1980-82 average annual harvest in the controlled hunt was 129 deer; 1980-81 average annual deer hunting occasions were 1,748 (1982 hunting occasion data are not yet available). Hunting with guns has also been permitted since 1980 in the Bruce County townships, but no reliable data are available on harvests or occasions. Seasons in which hunting with guns has been permitted have been very short (three days in 1980, four days in 1981 and 1982) and have been limited to the portions of the district mentioned. Hunting with bows, although permitted throughout the district every fall, does not have a large following in the area; no reliable data are available on the archery hunt.

These estimates of potential and present deer harvests suggest that the greater part of the potential harvest is not being taken at present. As the target is well within the biological potential, it can be assumed to be achievable.

b. Implementation Strategy

- Encourage the protection of production forest and other wildlife habitat, the ministry will help to ensure the protection of deer habitat.
- Work closely with conservation authorities, municipalities, and landowners to maintain and improve the quality of, and recreational access to, prime deer habitat.
- Regulation of the numbers of deer hunters on an area basis, may be continued and, as appropriate, altered within the district. The ministry plans to work towards longer seasons open to hunting with guns.
- Encourage each township municipality to support annual deer seasons open to hunting with guns within its boundaries.
- Increased efforts may be made to more accurately determine the district's deer population so as to permit a better assessment of the sustainable yield of deer in the district.

4. SMALL GAME HUNTING

a. Discussion

No suitable method for estimating potential small game populations has yet been applied to Wingham District. Therefore, the target must be evaluated primarily on the basis of information on small game hunting activity.

Province-wide surveys of small game hunting activity indicate the following:

Year	Small game animals harvested	Hunting occasions
1978	39,575	45,000
1979	33,262	42,400
1980	41,906	47,700
Annual average	38,248	45,030

The principal species sought were ruffed grouse, cottontail rabbit, European hare and raccoon.

There has been a considerable decline in total district small game harvests since the mid 1970s, reflecting in large measure declines in cottontail and European hare populations. Between 1976 and 1979, district cottontail harvests declined by 78 percent, while European hare harvests fell by 75 percent. In 1980, harvests of these species, as well as total harvests, began to rebound from 1979 levels. These variations reflect the cyclical fluctuations in small game populations which cannot be planned for or avoided. It can be assumed that 1979 small game populations and harvests are near the minimums which can be expected in the district.

The target is about 18,000 opportunities greater than what is currently available (45,000 opportunities annually). It is expected that the Hullett Wildlife Management Area may provide about 2,800 small game hunting opportunities once development of the area is completed. Some additional opportunities might be provided at Point Farms Provincial Park. Therefore it appears that retaining existing opportunities, creating other opportunities and maintaining available small game habitat will be necessary if the target is to be achieved.

b. Implementation Strategy

- Through guidelines identified in Sections II.C and III.A to encourage the protection of production forest and other wildlife habitat, the ministry plans to help to ensure the protection of small game habitat.
- Through advisory and extension services, the ministry plans to work closely with conservation authorities, municipalities, and landowners to increase and improve the quality of small game habitat and provide more recreational access to huntable areas.
- Provide small game hunting opportunities at the Hullett Wildlife Management Area.
- Point Farms Provincial Park may be opened to small game hunting in season in accordance with the approved master plan for the park.

5. WATERFOWL HUNTING

a. Discussion

As in the case of small game, no suitable method for estimating potential waterfowl populations has yet been applied to Wingham District, and the target therefore must be evaluated primarily on the basis of information on waterfowl hunting activity.

Information from province-wide surveys of waterfowl hunting activity indicate the following:

Year	Waterfowl harvested	Hunting occasions
1978	15,504	18,300
1979	13,128	14,000
1980	13,596	17,600
Annual average	14,076	16,600

The Hullett Wildlife Management Area is expected to provide about 3,500 waterfowl hunting opportunities when complete, and additional waterfowl hunting opportunities could be provided on adjacent private land given the establishment of hunting agreements with private landowners (see *Background Information* report).

This management area is being developed to create a large area of waterfowl breeding habitat which will increase waterfowl production benefitting not only the Wingham District area but also areas to the south. In Wingham District, this should create opportunities for hunting a resident waterfowl population in addition to the historic dependency on migrating waterfowl.

The preceding information suggests that the target for waterfowl is readily achievable and that good quality hunting opportunities can be provided. In reaching this conclusion, it is assumed that the quality standards of recent years are acceptable and that recent harvests were biologically allowable and can be maintained in the future.

b. Implementation Strategy

- The ministry plans to help to achieve the protection of waterfowl habitat.
- The ministry plans to provide new, high quality and controlled hunting opportunities through the development of waterfowl habitat at the Hullett Wildlife Management Area. Agreements may be sought with adjacent landowners to provide public access to additional opportunities.
- Through advisory and extension services, the ministry plans to work closely with conservation authorities, municipalities, and landowners to maintain and improve the quality of, and recreational access to prime waterfowl habitat.
- Point Farms Provincial Park may be opened to waterfowl hunting in season in accordance with the approved master plan for the Park. This may provide additional access to Lake Huron for diving-duck hunting opportunities.

6. TRAPPING

a. Discussion

No suitable method for estimating potential furbearer populations has yet been applied to Wingham District, so the target must be evaluated primarily on the basis of information on fur harvests.

Annual district fur harvests by trappers and hunters have been as follows in recent years.

Year	Total pelts harvested		
	by trappers	by hunters (mainly raccoon)	total
1978-79	36,779	4,000	40,779
1979-80	36,533	4,400	40,933
1980-81	32,981	2,500	35,481
1981-82	29,099	3,965	33,064
Annual average	33,848	3,716	37,564

The preceding information suggests that the fur production target of 36,000 pelts per year assigned to the district is achievable, given modest additional efforts to perpetuate present harvest levels. It should be emphasized that the target represents a long term annual average which is to be met, and that furbearer populations fluctuate cyclically.

As noted in the *Background Information* report, it is the opinion of district staff that the district's furbearer populations and habitat are not capable of sustaining significant increases in fur harvests from present levels.

b. Implementation Strategy

- Through guidelines identified in Sections II.C and III.A to encourage the protection of production forest, wetlands, and other wildlife habitat, the ministry plans to help to ensure the protection of furbearer habitat.
- Through advisory and extension services, the ministry plans to work closely with conservation authorities, municipalities, and landowners to maintain and improve the quality of prime furbearer habitat.
- The ministry plans to continue, and expand if necessary, present advisory services offered to trappers.

- The ministry plans to disseminate information on the value and importance of trapping in the district, so as to continue to encourage landowners to allow trappers access to their lands.
- Private land fur management units consisting of small numbers of townships may be delineated. Each trapper may be licensed for a specific unit or units, and only trappers licensed for a unit will be permitted to trap in that unit. The number of trappers licensed for a unit may be limited in accordance with that unit's capability to sustain fur harvests.

7. OTHER USES OF WILDLIFE

a. Discussion

No method is available for estimating the potential of public and private lands to support wildlife viewing. There are also no reliable data on current levels of viewing activity in the district, even on provincially owned public lands. However, it is evident that, when completed, Hullett Wildlife Management Area will be the principal provider of wildlife appreciation opportunities on provincially owned public lands in the district. Point Farms Provincial Park also provides some opportunities for viewing wildlife on provincially owned public lands. Viewing targets may be established in future as better information is obtained and policies are further developed.

There are no areas in the district known to provide habitat for any wildlife species designated under the *Endangered Species Act*. However, such areas may come to light in future, or additional species which have habitats in the district may in future be designated under the *Act*.

b. Implementation Strategy

The ministry plans to:

- protect, conserve and manage wildlife species (both non-game and game) on public and private lands, and ensure the perpetuation of diverse high quality habitats;
- identify endangered, threatened or rare species, significant populations of wildlife species (both non-game and game) and protect or manage these populations if the best available scientific, social and economic data indicate that such action is necessary to achieve the above objectives and targets;
- work cooperatively with government agencies at the federal, provincial and municipal levels, and with private landowners, developers and other members of the private sector to achieve the protection of all wildlife resources (both non-game and game);
- encourage greater non-government participation in the identification and management of wildlife, in particular endangered, threatened or rare species; and
- provide extension services which promote an understanding of the value of wildlife resources (both non-game and game), and non-consumptive uses, and which enhance social benefits and tourism.

Through advisory and extension services, the ministry plans to work closely with conservation authorities, municipalities, and landowners to maintain and improve the quality of, and recreational access to, prime wildlife habitat.

When completed, Hullett Wildlife Management Area should be managed to provide high quality wildlife viewing, educational, and interpretive opportunities, in accordance with the approved master plan for the area.

Wildlife viewing will be encouraged at Point Farms Provincial Park and on other Crown lands in the district used for recreation, and interpretive facilities may be developed when appropriate.

8. LAND USE STRATEGY (All Wildlife Species)

a. Hunting

- The deer hunting recreation target should be met from deer habitat areas throughout the district (with the exception of Point Farms Provincial Park which is closed to deer hunting).

The small game hunting recreation target should be met from small game habitat areas throughout the district.

- The waterfowl hunting recreation target should be met from waterfowl habitat areas throughout the district. Hullett Wildlife Management Area will likely make a major contribution to the target and be the focal point for ministry management efforts.

b. Trapping

The fur production target should be met from furbearer habitat areas throughout the district (with the exception of Point Farms Provincial Park which is closed to trapping).

c. Other Uses of Wildlife

No specific land use guidelines have been developed. The ministry plans to seek to create opportunities for wildlife viewing and appreciation and to protect rare, threatened and endangered species wherever they are found.

d. General Resource Area Guidelines
The ministry will not vary wildlife management by general resource area.

9. SIGNIFICANT PROGRAM AREAS

The following significant program areas are considered to be critical to the achievement of the wildlife policies and strategies:

- Hullett Wildlife Management Area;
- Deer yard and wetlands, Ellice Swamp;
- Deer yard and wetlands, Gads Hill Swamp;
- Deer yard and wetlands, Hay Swamp;
- Deer yard and wetlands, Saratoga Swamp; and
- Deer yard and wetlands, Greenock Swamp.

10. INTEGRATED RESOURCE MANAGEMENT STRATEGY

a. Provincial Parks
Any wildlife habitat rehabilitation within significant earth and life science features should be compatible with the maintenance of the quality and integrity of the features in question. Opening of Point Farms Provincial Park to small game and waterfowl hunting in season may occur as set out in the master plan. Encouragement of wildlife viewing at the park, may increase park visitation.

b. General Recreation
Improved hunting and viewing opportunities resulting from expansion of wildlife management and rehabilitation efforts may enhance the quality and attraction of outdoor recreation in the district. The ministry plans to continue to provide recreational trails at Hullett Wildlife Management Area, thus contributing to the district's overall supply of general recreation opportunities.

11. CONSERVATION AUTHORITY CONTRIBUTIONS TO THE DISTRICT LAND USE GUIDELINES

Conservation authorities can contribute to the achievement of the wildlife policies and targets by:

- continuing to protect production forest, wetlands, and other wildlife habitat on authority lands, and cooperating with the ministry in efforts to protect wildlife habitat throughout the district; and
- continuing to provide hunting and viewing access to authority lands.

12. MUNICIPAL CONTRIBUTIONS TO THE DISTRICT LAND USE GUIDELINES

Municipalities can contribute to the achievement of the wildlife policies and targets by:

- cooperating with the ministry in efforts to protect production forest, wetlands, and other wildlife habitat;
- ensuring that all municipal roads, drainage works, and other municipal works affecting watercourses are constructed and managed so as to maintain and, where possible, enhance wildlife habitat;
- maintaining and increasing efforts to provide recreational access to wildlife habitat through municipal lands; and
- supporting annual deer seasons open to hunting with guns.

F: provincial parks

1. OBJECTIVES

The objectives for the provincial parks system in southern Ontario are:
Protection

- to protect provincially significant elements of the natural and cultural landscape of Ontario;

Heritage Appreciation

- to provide opportunities for exploration and appreciation of the outdoor natural and cultural heritage of Ontario;

Recreation

- to provide provincial park outdoor recreation opportunities ranging from high intensity day use to low intensity wilderness experiences; and

Tourism

- to provide Ontario's residents and out-of-province visitors with opportunities to discover and experience the distinctive regions of the province.

2. TARGETS

The targets for the provincial parks system in Wingham District are:

Protection

- Earth Science to protect provincially significant, representative and special earth science features which contribute to the representation of the 35 geological environments of southern Ontario; and
- Life Science to protect provincially significant life science features which contribute to the representation of each vegetative site type in the 26 site districts in southern Ontario; and
- Historical Resources to protect provincially significant landscape-related prehistorical and historical resources which contribute to representation of the 14 themes of southern Ontario's history.

Heritage Appreciation

- to provide opportunities for exploration and appreciation of the outdoor natural and cultural heritage.

Recreation and Tourism

- to provide annually, by the year 2000, the following recreation opportunities for residents and visitors to provincial parks in Wingham District:

Day Use	219,600 swimming opportunities
	59,300 picnicking opportunities
Extended Use	96,200 camping opportunities

3. DISCUSSION

a. Protection

In Wingham District, an assessment of all known earth or life science areas of natural and scientific interest has been conducted to determine which are the most significant features relative to the protection targets. An assessment of historical resources has not been done.

(i) Areas of natural and scientific interest

These are areas of land and water containing natural landscapes or features which have been identified as having values related to protection, natural heritage appreciation, scientific study or education.

Areas of natural and scientific interest may vary in level of significance. The most significant may contribute to the achievement of the ministry's protection objective.

Where areas of natural and scientific interest occur on public lands managed by the ministry, it will ensure that the land uses and activities which occur, provide for the protection of identified values.

On private lands, the ministry will, through cooperation with others, attempt to ensure that landowners are aware of significant features on their properties and seek the owner's cooperation in protecting such features. The identification of areas of natural and scientific interest on private land does not indicate an intent of the ministry to acquire this land or to restrain or prevent any private use of land.

Areas of natural and scientific interest encourage the protection of areas not regulated as provincial parks and provide a focus for both the public and private sectors to contribute to the protection of Ontario's natural heritage.

(ii) Most significant earth and life science features The features listed in Table 2 are the earth and life science features in Wingham District which can best contribute to representation of the geological environments and vegetative site types of southern Ontario.

Twenty-three earth science features in Wingham District have been identified as being important to the representation of the geological and geomorphological diversity of southern Ontario. (Based on preliminary information, 21 such features were noted in the *Background Information* report). The features include 15 glacial geomorphological features, five glacial geomorphological stratigraphic exposures, and three bedrock stratigraphic exposures. These earth science features total approximately 14,700 hectares (32,500 acres) in area.

Nine life science features in the district have been identified as being important to representation of the botanical diversity of southern Ontario. These include one section of Lake Huron shore-cliffs, two sections of river valley, four wetlands, and two sections of upland forest. Two of the features are shared with Owen Sound District. These life science features total approximately 5,400 hectares (13,500 acres) in area, excluding the Owen Sound District portions of the shared features.

While most of the stratigraphic exposure earth science features consist of extremely small quarry faces or roadside cuts, some of which are publicly owned, most of the geomorphological, landscape

earth science features include extensive tracts of privately owned farmland, and forested land. The wetland life science features include a mixture of conservation authority lands, county agreement forest lands, and private lands forested for the most part, while the remaining life science features consist primarily of privately owned forested and waste lands.

The total area of the earth and life science features is quite substantial. Obviously, the purchase by the Crown of these areas would be neither practical nor acceptable. In most cases, it is not necessary for these areas to be devoted exclusively to protection and heritage appreciation in order to achieve provincial parks objectives. The achievement of the protection targets in Wingham District, therefore, requires guidelines which will encourage the protection of these earth and life science features without undue infringement on existing land uses and property rights. It is also expected that the list of these features and the extent of the areas delineated as being required to protect the earth and life science features in question, will be refined over time.

(iii) Historical resources Existing provincial parks in southwestern Ontario have been evaluated for their potential to represent the themes of southern Ontario's landscape-related history.

Historical themes are groupings of historical activities of similar natures and times. They are usually represented by sites where specific relics are found or where known historical events occurred.

Four themes are represented to some extent within Point Farms Provincial Park: the alienation of the land theme, represented by the 1,000 acre survey system; the early settlements theme, by Canada Land Company settlement; the agriculture and fishing theme, by mixed farming; and the recreation and conservation theme, by the Park's history as a recreational resort.

While there are landscape-related prehistorical and historical resources outside provincial parks in Wingham District and elsewhere in southern Ontario, no studies have yet been carried out to identify the areas which can best contribute to full representation of the themes of southern Ontario's landscape-related history.

b. Heritage Appreciation

The target for heritage appreciation is achieved by providing opportunities for unstructured exploration and appreciation of features of Ontario's natural and cultural landscapes, and its earth and life science features. Such opportunities are best provided in large areas wherein representative samples of Ontario's variety of natural and cultural landscapes may be found.

Presently, only Point Farms Provincial Park contributes to this target in Wingham District. There, visitor services programming offers a variety of communications, recreation, interpretation and outdoor education messages, activities and opportunities for the heritage appreciation of a representative sample of the Lake Huron shoreline landscape.

No heritage appreciation opportunities are presently provided by the ministry inland in Wingham District. Consequently, studies are underway to determine if an area representative of Wingham's inland natural landscape exists which might contribute to achieving this target.

c. Recreation and Tourism

Currently, Point Farms Provincial Park offers 1,458 metres (4,783 feet) of day use swimming beach, 115 picnic tables, and 200 developed campsites. Using standards employed across southern Ontario to estimate the opportunities provided by provincial park recreation facilities, the facilities at Point Farms Provincial Park provide 296,000 swimming opportunities, 28,000 picnicking opportunities, and 47,000 camping opportunities per year. The approved master plan for Point Farms Provincial Park calls for additional development, when needed, to a level of 158 picnic tables and 332 developed campsites, providing 39,000 picnicking opportunities and 77,000 camping opportunities per year. Thus, most of the provincial park picnicking and camping targets could be met within Point Farms Provincial Park, given additional development in accordance with the park master plan. As well, the park's existing day use swimming beach more than accommodates the provincial park swimming target.

The projected provincial park picnicking and camping needs which according to the *Point Farms Master Plan* would not be met at Point Farms Provincial Park would translate into 83 picnic tables and 81 campsites. An additional recreation park or a natural environment park would have to be developed in the district to accommodate these facilities. The relatively few additional facilities required to meet the targets would not appear in themselves to justify the development of an additional provincial park. (An option would be to review the *Point Farms Master Plan* with the aim of providing these additional facilities in Point Farms.)

TABLE 2 SIGNIFICANT EARTH AND LIFE SCIENCE FEATURES, WINGHAM DISTRICT

Earth Science Features	Type of Feature	Predominant Ownership(1)
St. Mary's Cement Co.	bedrock stratigraphic exposure	P
Maitland River (Goderich Township)	bedrock stratigraphic exposure	P
Maitland River (Colborne Township)	bedrock stratigraphic exposure	P
Rannoch Road Cut	glacial geomorphological stratigraphic exposure	M
Wartburg Road Cut	glacial geomorphological stratigraphic exposure	M
Harmony Road Cut	glacial geomorphological stratigraphic exposure	M
Dashwood Area	glacial geomorphological feature	P
Lucan Moraine	glacial geomorphological feature	P
Staffa Kame Complex	glacial geomorphological feature	P
North Thames Valley	glacial geomorphological feature	P
Carlingford Spillway	glacial geomorphological feature	P
Seebach Hill Spillway	glacial geomorphological feature	P
Seaforth-Wawanosh Moraines	glacial geomorphological feature	P, MNR
Blyth Area	glacial geomorphological feature	P
Holmesville Area	glacial geomorphological feature	P
Drew Area	glacial geomorphological feature	P
Minto Kettle Lake	glacial geomorphological feature	P
St. Joseph Till	glacial geomorphological feature stratigraphic exposure	P
Elma Till	glacial geomorphological feature stratigraphic exposure	P
Lothian-Lake Warren Shorelines	glacial geomorphological feature	P
Kinburn Site	glacial geomorphological feature	P
Winthrop Site	glacial geomorphological feature	P
Seaforth Esker	glacial geomorphological feature	P
Life Science Features		
Saratoga Swamp	wetland	P, MVCA
Turnberry Swamp	wetland	P, MVCA
Greenock Swamp	wetland	P, SVCA
Eighteen Mile South Shorecliff	Lake Huron shorecliffs	P
Bayfield North Woodlots	upland forest	P
Bayfield River	section of river valley	P
Molesworth Woods	upland forest	P
South Saugeen River	section of river valley	P
Drew Bog and Swamp	wetland	P, SVCA

(1) P—private; M—municipal; MVCA—Maitland Valley Conservation Authority; SVCA—Saugeen Valley Conservation Authority; MNR—Ministry of Natural Resources.
Note: Detailed descriptions of all earth and life science features have been prepared and may be consulted at Wingham District Office.

Therefore, the assigned provincial park swimming target is over-achieved. The provincial park picnicking and developed camping targets may depend upon a review of the Point Farms master plan. Conservation authorities, municipalities, and the private sector all have the potential to contribute to meeting any deficiencies in the supply of picnicking and camping opportunities which may arise in the district.

d. Provincial Parks

In Wingham District, Point Farms Provincial Park, a recreation class park, is the only existing provincial park. It contributes mainly to the recreation target and secondly, to part of the historical component of the protection target. This provincial park alone does not meet all of the targets.

No one park can be all things to all people. Accordingly, to provide a diversity of heritage appreciation and recreation experiences, different park environments are required. Distinctive experiences and park environments are provided through six classes of parks: waterway, wilderness, nature reserves, historical, natural environment and recreation parks. It follows therefore that these park classes are intended to be a primary means through which park objectives and targets are implemented throughout Ontario's provincial park system.

Additionally, objectives and targets may be achieved through special means such as land owner agreements.

4. IMPLEMENTATION STRATEGY

a. Protection

- The owners of significant earth and life science features should be advised of the extent and significance of the earth or life science features on their properties.

- The ministry plans to work with owners of significant earth and life science features and municipalities to encourage and assist them in protecting and caring for the features on their properties.
- Where it is felt necessary by the ministry, a more detailed study of a feature may be conducted where it is anticipated that protection of the feature might be a land use or land planning concern.
- For the areas of natural and scientific interest, the ministry plans to encourage investigations to identify and study them, and foster an exchange of information about areas of natural and scientific interest with municipalities and conservation authorities, and upon request, with individuals or interested parties.

b. Heritage Appreciation

- The ministry plans to continue to provide heritage appreciation opportunities at Point Farms Provincial Park through visitor services programming that consists of communications, interpretation, recreation and outdoor education messages, activities and facilities.
- The ministry plans to complete studies to determine the feasibility of providing additional protection/heritage appreciation opportunities on a natural landscape representative of inland Wingham District.
- The ministry plans to encourage public appreciation of earth and life science features by:
  - developing interpretive material on the district's system of significant earth and life science features, which will include information on the ownership of and public access rights to each feature so as to discourage unwanted intrusions on private property by those interested in the earth and life science features of the district;
  - where appropriate, attempting to secure access for public appreciation of specific features in cooperation with landowners;
  - where appropriate, erecting plaques or developing other facilities for interpretation of specific features in cooperation with landowners; and
  - where appropriate, encouraging scientific and educational uses of specific features in cooperation with landowners.

c. Recreation and Tourism

- The ministry may develop, through a public review of the *Point Farms Master Plan*, additional camping and picnicking facilities in Point Farms Provincial Park. Trends in overall demand for picnicking and camping, and in the opportunities supplied by conservation authority, municipal, and private facilities, may be monitored and taken into consideration before this strategy is acted upon.
- The ministry plans to encourage conservation authorities, municipalities, and the private sector to develop facilities to help meet any apparent deficiencies in the supply of picnicking and camping opportunities in the district (Section III.G).

d. Provincial Parks

- The ministry plans to continue the operation of Point Farms Provincial Park as a recreation class park. The approved master plan for this park should be implemented over the next 20 years. This master plan, approved in 1977, will be reviewed and updated as required (for example, if facilities additional to those approved in the plan are required).
- The protection of earth and life science features may be achieved through means such as landowner agreements rather than by creating new nature reserve class parks.
- Should an area be found that is representative of Wingham's inland landscape, consideration may be given to the feasibility of creating a new natural environment class park or similar facility that would include some form of landowner participation. Minimal disruption of landowner and municipal aspirations should be a requirement for establishing such a park.

5. LAND USE STRATEGY

- The protection target may be met by encouraging appropriate protection or use of the earth and life science features listed in Table 2.
- Contributions to achievement of provincial park recreation targets may be provided from the existing Point Farms Provincial Park.
- Provincial parks strategies should be keyed to those sites which are significant to the program, rather than to general resource areas.

6. SIGNIFICANT PROGRAM AREAS

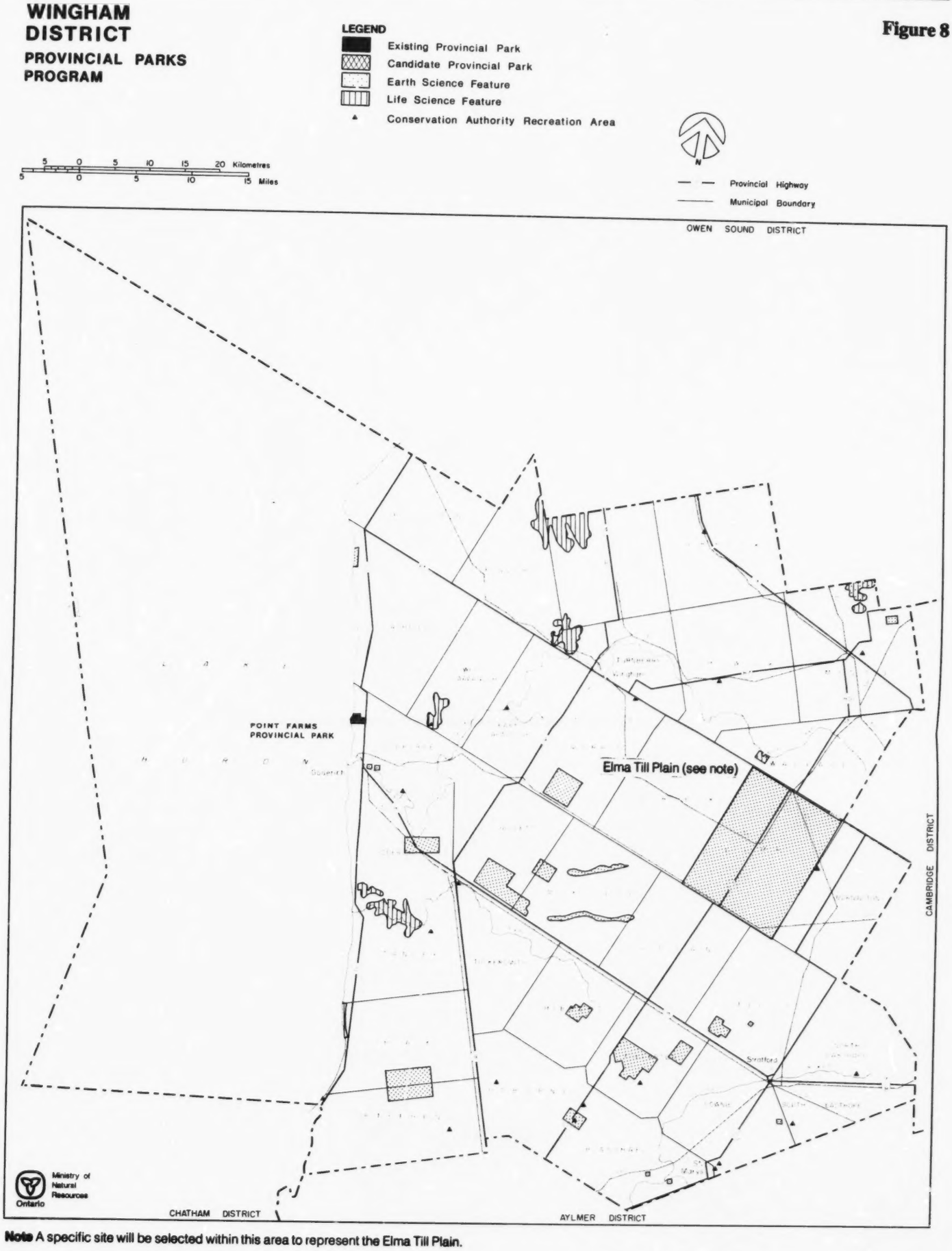
The following significant program areas are considered to be important to the achievement of the provincial parks policies and targets (Figure 9):

- Point Farms Provincial Park; and
- The 23 earth science features and nine life science features listed in Table 2 and shown on Figure 8. The list of earth and life science features and their extent will be refined over time.

WINGHAM DISTRICT

PROVINCIAL PARKS PROGRAM

Figure 8



Note A specific site will be selected within this area to represent the Elma Till Plain.

7. INTEGRATED RESOURCE MANAGEMENT STRATEGY

In order to ensure that the provincial parks program is efficiently integrated with other programs and areas of concern, the ministry plans to use the following guidelines. Any lands acquired for future park purposes may be managed in accordance with the general policy for integrated resource management (Section II A).

a. Fisheries

Encouragement of use of Point Farms Provincial Park for access to the Lake Huron fishery may contribute to the supply of sports fishing opportunities available in the district.

b. Wildlife

Opening of Point Farms Provincial Park to small game and waterfowl hunting in season, and tree and hedgerow planting in the park, both consistent with the approved master plan, may add to the supply of hunting and viewing opportunities available in the district.

8. CONSERVATION AUTHORITY CONTRIBUTIONS TO THE DISTRICT LAND USE GUIDELINES

Conservation authorities can contribute to the achievement of the provincial parks policies and targets by:

- continuing to protect those portions of significant earth and life science features situated on authority lands, and cooperating with the ministry in efforts to encourage public appreciation of the features involved; and
- developing facilities on authority lands to help meet any apparent deficiencies in the supply of picnicking and camping opportunities in the district, and by providing where appropriate, programming that contributes to the provision of heritage appreciation opportunities.

9. MUNICIPAL CONTRIBUTIONS TO THE DISTRICT LAND USE GUIDELINES

Municipalities can contribute to the achievement of the provincial parks policies and targets by:

- continuing to protect those portions of significant earth and life science features situated on municipal lands, and cooperating with the ministry in efforts to encourage public appreciation of the features involved; and
- developing recreational facilities to help meet any apparent deficiencies in the supply of picnicking and camping opportunities in the district.

G: general recreation

1. OBJECTIVES

The ministry's recreation management efforts are directed primarily to hunting, fishing, and provincial parks. There are a number of other activities which the ministry carries out for which no objectives have been developed.

Tentative objectives for general recreation are:

- to provide and to encourage a wide variety of outdoor recreation opportunities ranging from day use to back-country experiences;
- to identify, select and protect provincially significant natural and cultural resources; and
- to provide an economic contribution through tourism.

2. TARGET

No targets have been developed for outdoor recreation on Crown or other lands outside provincial parks in southern Ontario, other than for hunting and fishing.

3. DISCUSSION

No method for quantifying the potential of public and private lands to support general recreation has yet been applied to Wingham District. As well, there are no reliable data on general recreation activity levels within the district. Some information on the supply of opportunities provided by

existing facilities is available in the *Background Information* report.

The ministry directly contributes to the achievement of general recreation objectives by developing, maintaining, or promoting recreational facilities such as the Maitland River and Bayfield River canoe routes, trails at Hullett Wildlife Management Area and in and adjacent to some agreement forests, and Lake Huron shore access at the Baron de Tuyle property south of Bayfield. Conservation authorities, municipalities, trail and other recreational clubs, and the private sector all contribute to the achievement of general recreational objectives through their acquisition, development, and management of recreational sites and facilities.

4. IMPLEMENTATION STRATEGY

The ministry should cooperate with conservation authorities and municipalities in the joint development of a Lake Huron shore management plan. This plan may address improvement of beach access, parking facilities, garbage collection, and area maintenance and management, so as to provide quality opportunities for public recreational access to the Lake Huron shoreline without undue disturbance to landowners. The plan may also attempt to ensure orderly use and development of Crown and privately owned shorelands, and to reduce conflicts among landowners and other users. Private landowners should be consulted throughout the development of this plan.

The ministry may develop a program to provide the public with information on the location, accessibility, and recreational potential of all Crown lands and waters in the district.

Public canoeing on the Maitland River below Wingham and the Bayfield River below Seaforth may be encouraged. The ministry should consult with landowners along these rivers to identify any concerns regarding public use. Efforts may be made to ensure that adequate opportunities for access, portaging, and daytime stopping are available without infringing on private landowners. The ministry plans to endeavour to discourage landowners from erecting obstacles to navigation on any stretches of the above rivers. Improved information on the above rivers may be provided to canoeists, including information as to what activities are or are not permitted along the routes.

The ministry plans to continue to cooperate with conservation authorities, municipalities, trail and other recreational clubs, and the private sector in the acquisition, planning, development, and management of recreational sites and facilities by those agencies. Efforts should be made to provide increased outdoor recreation planning and management advisory services to those agencies. Permission may be granted to trail and other recreational clubs to develop trails and other facilities on public lands, provided that the facilities are compatible with ministry objectives for the lands in question, and are accessible to the general public without charge.

5. GENERAL RESOURCE AREA GUIDELINES

General recreation guidelines may be keyed to those sites which have significant potential for general recreation, rather than to general resource areas.

6. SIGNIFICANT PROGRAM AREAS

No significant program areas are considered to be critical particularly to the achievement of the general recreation policy. However, those Crown lands and waters in the district with significant potential for general recreation are important to this program.

7. INTEGRATED RESOURCE MANAGEMENT STRATEGY

a. Fisheries

Improved general recreation information, access, and management may contribute to the supply of sports fishing opportunities available in the district.

b. Wildlife

Improved general recreation information, access, and management may add to the supply of hunting and viewing opportunities available in the district.

8. CONSERVATION AUTHORITY CONTRIBUTIONS TO THE DISTRICT LAND USE GUIDELINES

Conservation authorities can contribute to the achievement of the general recreation policy by:

- cooperating with the ministry in development of a Lake Huron shore management plan;
- continuing to provide recreational canoeing access through authority lands to the Maitland River below Wingham and the Bayfield River below Seaforth; and
- continuing to cooperate with the ministry in the acquisition, planning, and development of recreational sites.

9. MUNICIPAL CONTRIBUTIONS TO THE DISTRICT LAND USE GUIDELINES

Municipalities can contribute to the achievement of the general recreation policy by:

- cooperating with the ministry in development of a Lake Huron shore management plan; and
- cooperating with the ministry in the acquisition, planning, and development of recreational sites.

H: land administration

1. OBJECTIVE

The objective is to facilitate the orderly development and conservation of Ontario's land and water resources.

2. TARGET

No targets have been developed for land administration in southern Ontario.

3. IMPLEMENTATION STRATEGY

The ministry plans to continue to contribute to orderly land use and resource management, and the protection of individual property rights, through the provision of geographic information, and the determination and documentation of interests in land, water, and resources which have been granted by the Crown.

Where the ministry receives a request for the disposition of Crown lands or resources for a use which is in accordance with the *Land Use Guidelines*, but which is not recognized in the applicable official plan or zoning bylaw, the ministry should request input from the affected municipality in advance of any disposition.

4. GENERAL RESOURCE AREA GUIDELINES

The ministry will not vary land administration activities by general resource area.

5. SIGNIFICANT PROGRAM AREAS

All Crown lands in the district, as enumerated in the *Background Information* report are significant areas important to achieving the land administration policy and the policies and targets of the other district programs.

1. INTERNAL APPLICATION AND INTEGRATION

Table 3 summarizes the guidelines described in this document which will aid in the integration of resource management efforts in the district. The table shows how actions taken as part of each specific ministry program (land administration excepted) may contribute to or complement other programs and the public safety area of concern.

Application of the *Wingham District Land Use Guidelines* includes the following:

- continuing to cooperate with municipalities, conservation authorities, other government agencies, and special interest groups;
- increasing provision of services to private landowners;
- continuing to provide natural resource management education and information to the general public;
- through its involvement in the plan approval and review process, its review of specific development proposals, to protect the quality and integrity of significant program areas to achieve district policies and strategies; and
- carrying out all its activities in accordance with the strategies identified in this document.

The ministry's ongoing responsibilities for the application of this document includes continuous monitoring of results. The assistance of the general public in monitoring the effectiveness of implementation of the *Wingham District Land Use Guidelines* will be most welcome.

2. EXTERNAL COORDINATION

a. Status of the District Guidelines

The Ministry of Natural Resources does not intend to usurp the recognized role of municipalities in land use planning, or to duplicate the planning processes which have been carried out by counties and local municipalities. The control of land use on private land is the responsibility of municipalities and the Ministry of Municipal Affairs and Housing under the authority of *The Planning Act*.

The ministry recognizes that private landowners, other government agencies, municipalities, conservation authorities, and interest groups are its key partners in any effort to achieve effective and integrated resource management. The ministry plans to continue to work with these groups, especially with municipalities through plan input and review to encourage that resource values are considered in official plans.

b. Municipalities

The *Wingham District Land Use Guidelines* may serve as one of the sources of information for ministry involvement in municipal planning.

The ministry may consult with municipal officials and private landowners regarding those provisions of the *Land Use Guidelines* which indicate that the ministry wishes to influence particular uses of private lands. The needs and concerns of other affected parties will be taken into consideration in these discussions.

There may be occasions when the ministry feels that certain uses of or proposed developments on private land, while in conformity with official plans, will have a negative impact on significant program areas or other critical aspects of ministry programs or interests. In these situations, the ministry may attempt to resolve the situation through discussions with the proponent, the municipality, and the Ministry of Municipal Affairs and Housing.

In municipalities containing Crown land, there may be situations where official plans do not permit uses of Crown land indicated as acceptable in the *Land Use Guidelines*. Where this is the case, and it appears that a possible land use conflict might arise, the ministry may undertake negotiations with the municipality to try to resolve the situation.

Where the ministry receives a request for the disposition of Crown lands or resources for a use which is in accordance with the *Land Use Guidelines*, but which is not recognized in the applicable official plan or zoning bylaw, the

TABLE 3 INTEGRATED RESOURCE MANAGEMENT, WINGHAM DISTRICT

Contributing Programs \ Receiving Programs	Public Safety	Forest Resources	Mineral Aggregate Resources	Fisheries	Wildlife	Provincial Parks	General Recreation
Forest Resources	• reduce erosion on hazard lands		• low management emphasis on aggregate lands	• enhance habitat • encourage sports fishing in public forests	• enhance habitat • encourage trapping, hunting, viewing in public forests	• ensure compatibility of forest management in earth and life science features	• encourage general recreation in public forests
Mineral Aggregate Resources		• encourage forest removal and best use at mature sites first • encourage re-forestation after extraction		• prevent harm to significant habitat • encourage stocked ponds after extraction	• prevent harm to significant habitat	• prevent harm to earth and life science features	
Non-Aggregate Mineral and Fossil Fuel Resources		• encourage forest removal and best use at mature sites first		• prevent harm to significant habitat	• prevent harm to significant habitat	• prevent harm to earth and life science features	
Fisheries		• enhance production forest area				• ensure compatibility of fisheries rehabilitation in earth and life science features • increase Point Farms visitation	• enhance general recreation quality • contribute to general recreation opportunities
Wildlife						• ensure compatibility of wildlife recreation in earth and life science features • increase Point Farms visitation	• enhance general recreation quality
Provincial Parks				• contribute to sports fishing opportunities	• increase hunting and viewing opportunities		
General Recreation				• contribute to sports fishing opportunities	• increase hunting and viewing opportunities		

Note: This table shows how actions taken as part of the contributing programs will contribute to or complement the receiving programs.

ministry will first request input from the municipality.

Potential municipal contributions to specific ministry programs are described in the municipal contributions to the *Land Use Guidelines* sections provided for each program (land administration excepted) in Part III of this document.

c. Conservation Authorities

Conservation authorities are independent agencies established by local municipalities and the Ontario Government to develop and implement watershed-oriented resource management programs. The Ministry of Natural Resources administers the *Conservation Authorities Act* under which all authorities function. Five conservation authorities have jurisdiction within Wingham District: Ausable-Bayfield, Maitland Valley, Saugeen Valley, Upper Thames River, and Grand River. Each authority receives its direction from local residents through the representatives appointed to the authority by its member municipalities.

Conservation authorities receive a substantial portion of their funding through grants from the Ministry of Natural Resources, with the balance collected from the member municipalities. General program direction and technical assistance are provided to authorities by the ministry. The primary role of authorities is in watershed management. Other authority programs support this role and include outdoor recreation, renewable resource production, and information and education. Consequently, conservation authorities play a significant local role in the delivery of natural resources programs and services to the public.

Conservation authorities throughout Ontario are currently completing interim watershed plans which will outline long term directions for all authority programs. Areas of mutual concern to the ministry and conservation authorities include flood and erosion damage reduction, protection, and control; wetland and stream conservation; forest protection and reforestation; provision of outdoor recreation opportunities; and protection and public appreciation of significant natural and historical features. Conservation authority and ministry staff are coordinating their planning efforts to ensure that watershed management plans and district land use guidelines are compatible and complementary. Every effort is being made to reduce duplication and overlap in planning, and ensure that resource management is carried out so as to maximize benefits to the people of Ontario. Wingham District's conservation authorities will be able to make significant contributions to the achievement of ministry policies and targets. Integrated management programs are being developed jointly to aid in achieving these targets. Mutual concerns are being expressed on many municipal plan input and review matters.

Potential conservation authority contributions to specific ministry programs are described in the conservation authority contributions to the *District Land Use Guidelines* sections provided for each program (land administration excepted) in Part III of this document.

d. Ministry of Agriculture and Food

The Ministry of Natural Resources recognizes the importance of agriculture. On private land, the ministry normally will not encourage or support land or resource uses which result in a long term loss of the amount of land in agricultural production. The ministry plans to focus its resource management efforts on lands not currently in agricultural production.

The ministry plans to work closely with and take into account the interests and concerns of the Ministry of Agriculture and Food, agricultural groups, and individual farmers in all aspects of resource management which affect the agricultural community.

e. Ministry of the Environment

The Ministry of Natural Resources plans to work closely with the Ministry of the Environment in monitoring impacts on the environment related to natural resources.

To this end, the two ministries have jointly developed guidelines to govern their relationship in matters of fisheries and water quality. The Ministry of Natural Resources is responsible for identifying the fisheries values of water bodies. The Ministry of the Environment is responsible for determining existing water quality and predicting the effects of proposed development on water quality. This water quality information is used by the two ministries to assess the potential effects of development on fisheries values.

APPENDIX

A: highlights of public consultation

In late 1979 and early 1980, the Wingham District planning program was publicized through the district's quarterly newsletter, *The Huron Tract*, and the district's weekly *All Outdoors* program on CKNX radio. A *Background Information* report was published in April 1980 and distributed to over 1,000 interested individuals, groups, and agencies throughout the district, including not only those on normal ministry mailing lists, but also those expressing interest in the planning program as a result of the publicity efforts referred to. The purpose of the *Background Information* report was to provide the ministry and the public with the information necessary for the development and assessment of policies and targets for ministry programs in the district. Recipients of the *Background Information* report were invited to attend an open house held on April 25, 26, and 27, 1980 at the Wingham District office, or to submit written comments to the District Manager up to May 30 (subsequently extended to June 30), 1980. Ministry staff also held followup meetings with anyone requesting the opportunity. Information on public response to the *Background Information* report may be found in Appendix A of the June 1982 draft *Wingham District Land Use Strategy*.

The next stage of public consultation began with publication of a draft *Wingham District Land Use Strategy* in June 1982. In July and August, over 100 copies of this draft report, and over 600 copies of a tabloid summarizing its contents, were widely distributed for review and comment. The general public was invited to attend three open houses (at Wingham on August 20, 1982, Stratford on August 24, and Goderich on August 26), and also to submit comments to the District Manager up to August 31, 1982 (comments received after August 31 and up to November 1 were accepted as well and were given equivalent consideration). Again, ministry staff held followup meetings with anyone requesting the opportunity.

Table A1 lists the major events in the public consultation program leading up to publication of the *Land Use Guidelines*. Table A2 provides statistics on public contacts in both the *Background Information* and draft strategy stages. Table A3 breaks down the comments received on the draft strategy by type of response and type of respondent.

Public response to the draft strategy was subsequently analyzed and evaluated, and this approved document reflects public discussion of that draft report. The Minister of Natural Resources personally reviewed a summary and analysis of public comments prepared by district staff, and discussed the proposed *Land Use Guidelines* with the District Manager. The Minister then hosted several open house forums across the province to obtain a first hand impression of public concerns with the ministry's planning program. The Minister's southwestern Ontario forum, held in London on December 6, 1982, attracted about 600 people.

All comments received on the draft strategy, and the ministry's response to the issues raised, are available for review in the Wingham District office, in the public reading room at the ministry's main office in Toronto, and at the Legislative Library at Queen's Park.

TABLE A1 MAJOR EVENTS IN PUBLIC CONSULTATION PROGRAM, WINGHAM DISTRICT

January 13, 1980	*All Outdoors* program on district planning aired on CKNX Wingham
April 2, 1980	*Background Information* reports and announcements of open house mailed
April 1980	Advertisements for background information open house appeared in Stratford *Beacon-Herald* and district's 24 weekly newspapers
April 20, 1980	*All Outdoors* program on *Background Information* report aired on CKNX Wingham
April 25, 26, and 27, 1980	Background information open house, Wingham
July 9, 1982	District news release announcing draft strategy open houses
July 15, 1982	Advertisement for draft strategy open house appeared in Stratford *Beacon-Herald*
July 26, 1982	Draft strategies and announcements of open houses mailed
August 11 and 12, 1982	Advertisements for draft strategy open houses appeared in district's 22 weekly newspapers
August 12, 1982	Draft strategy summary tabloids mailed
August 15, 1982	*All Outdoors* program on draft strategy aired on CKNX Wingham
August 18 to 26, 1982	Advertisements for draft strategy open house aired on CJCS Stratford and CKNX and CKNX-FM Wingham
August 20, 1982	Ministry staff interview on draft strategy aired on CKNX and CKNX-TV Wingham
August 20, 1982	Draft strategy open house, Wingham
August 24, 1982	Draft strategy open house, Stratford
August 26, 1982	Draft strategy open house, Goderich
December 6, 1982	Minister's Open House Forum, London

TABLE A2 SUMMARY OF PUBLIC CONTACTS, WINGHAM DISTRICT

Background Information	
Reports distributed	1,062
Open houses	1
Open house attendance	11
Comment sheets distributed	11
Written comments received	28
Draft Strategy	
Draft strategy distributed	127
Summary tabloids distributed	616
Open houses	3
Open house attendance	82
Comment sheets distributed	82
Written comments received as of November 1, 1982	34
Interviews with media	6

TABLE A3 SUMMARY OF PUBLIC RESPONSES TO DRAFT STRATEGY, WINGHAM DISTRICT

	Type of Response		
	Open house comment sheet	Letter or brief (up to Nov. 1, 1982)	Total
Type of Respondent			
Individual	7	8	15
Federal/provincial agency	—	1	1
Conservation authority	—	4	4
Municipality	—	6	6
Interest group	—	1	1
Industry or industry association	2	3	5
Anonymous	2	—	2
Total	11	23	34

Capability
The natural ability of an area to provide continuous opportunity for benefits under an assumed level of management.

Capacity
The upper limit to which an area of land, or water, may be used or developed without an undesirable change taking place in the environment. Also called "carrying capacity".

Coldwater Habitat
Waterbodies having characteristics that support coldwater fish species, such as trout, whitefish, ciscoe.

Commercial Fishing
The taking for sale of fish other than game fish, by means of any hook-line, trolling line, spear, minnow-trap, dip-net, gill-net, hoop-net, pound-net, seine-net, trammel-net, trap-net or trawl-net.

Crown Land
All land (including land under water) held by the province, both land which has never been sold and land which has been re-acquired.

Earth Science Feature
Public or private land where landforms of provincial interest have been identified.

Fish Community
An aggregation of different fish species living and interacting together.

Forestry Purposes
Includes the production of wood and wood products, provision of proper environmental conditions for wildlife, protection against floods and erosion, recreation, and protection and production of water supplies.

Furbearers
Animals having commercially valuable pelts, including beaver, mink, marten, otter, muskrat, fisher, fox, raccoon, wolf, lynx.

Goal
A general purpose to which the ministry aspires.

Hazard Land
Land, which because of its physical characteristics in combination with its location, present a risk for its occupants including loss of life, property damage and social disruption (example, flooding).

High Potential Resource Areas (Stone)
Selection criteria similar to that used for sand and gravel deposits are used along with drift thickness (i.e. 1 to 8 metres, or 3 to 25 feet) and laboratory testing for performance and suitability data.

High Potential Resource Areas (Sand and Gravel)
Generally, those deposits thicker than 6 metres (20 feet) and containing more than 35 percent crushable gravel are evaluated with relation to deposit size, aggregate quality and location along with the assessment of resources in relation to the distribution in the region in which the municipality is located.

Integrated Resource Management
The coordination of resource management programs to ensure that conflicts are minimized and that management which would benefit several programs is encouraged. Integrated management encourages multiple use, but recognizes that in some circumstances, management of areas for a single purpose may be necessary.

Interim Property Management
To provide management of land acquired by the ministry until such time as management is assumed by the intended user group.

Interim Use
Land and resource use and management practices which are permitted to occur over a period of time prior to the initiation of another identified use.

Land Use Guidelines
A document which displays direction concerning the use of land and water in a defined area. It identifies where and how the ministry intends to achieve its objectives in a specific district through the use of Crown land and through influencing the use of private land.

Land Use Planning
A process which culminates in a direction regarding the use of land.

Life Science Feature
Public or private land where a natural habitat of provincial interest has been identified.

Management
The judicious use of means to achieve ends. Management may have various levels of intensity.

Multiple use
A resource management or planning concept applied to very large areas to indicate that all basic uses are accommodated. Typically, two or more uses may occur on the same general area at the same time or in sequence.

Objective
A quantifiable end result to be achieved.

Occasion
A measure of actual recreational use describing the number of times a recreation resource or facility is used by individuals in a given time period. An occasion is considered not to exceed one day in duration.

Operational Plan
A part of a resource management plan stating the extent (includes human and financial resources) of all work of any nature to be carried out during one or more years of the management period.

Opportunity
A measure of recreation supply. It is used to describe the number of times a resource or facility can be used (occasions of use) in a given time period. An opportunity is considered not to be greater than one day.

Optimum Sustainable Yield
The concept refers to the maximum level of resource harvest which can be sustained on a long-term basis without causing detrimental effects on the resource base.

Policy
A decision concerning the objectives to be achieved and the means of achieving them.

Production Forest Land
An area dedicated to the growing of merchantable timber or the production of other forest products.

Productive Forest Land
Those lower capability agricultural lands, both forested and open, and higher capability lands with existing forest cover, from which the ministry hopes to achieve their forestry targets.

Program
An activity undertaken by the ministry to provide a service or manage a particular resource.

Protection Forest
An area wholly or partially covered with woody growth, managed primarily to regulate stream-flow, prevent erosion, hold shifting sand or exert any other beneficial influence.

Public Land
Any land owned or administered by a public body or agency. It includes federal, provincial and municipally-owned lands and lands held by agencies such as parks commissions and conservation authorities.

Recreation Park
An area which supports a wide variety of outdoor recreation opportunities for large numbers of people in attractive surroundings.

Resource
Any commodity that meets a need.

Resource Management
The control and coordination of the use of resources to achieve specific ends. Commonly applied in particular to natural resources.

Resource Management Plan
A plan by which the policies, objectives and targets usually of an individual program (except in the case of an integrated resource management plan), are implemented for a specific resource.

Sequential Use
Where one use is followed by another in planned sequence.

Sport Fish
For the purpose of this document sport fish are the top predator species sought after by anglers.

Strategy
Planned actions or measures to achieve a desired end.

Succession
The replacement of one plant community by one of a different nature over time.

Surface Rights
All rights in land, other than mining rights, including sand and gravel deposits.

Target
A quantified end to be achieved or completed by a specific date.

Tolerant Hardwoods
Includes the following species: sugar maple; beech; basswood; yellow birch; red oak; and white ash. The term "tolerant" refers to the ability of these species to tolerate moderate levels of shade.

Wetlands
Lands which are permanently or seasonally covered with shallow water and where distinctive soil conditions, plant and wildlife communities develop. These include wetland forests (swamps), wetland thickets, marshes, bogs, and fens.

Work Plan
A plan prepared annually which defines what management activities are to be undertaken for that year.

WINGHAM DISTRICT

GENERAL RESOURCE AREAS

5 0 5 10 15 20 Kilometres

5 0 5 10 15 Miles

(2) Provincial Highway

Municipal Boundar

OWEN SOUND DISTRICT

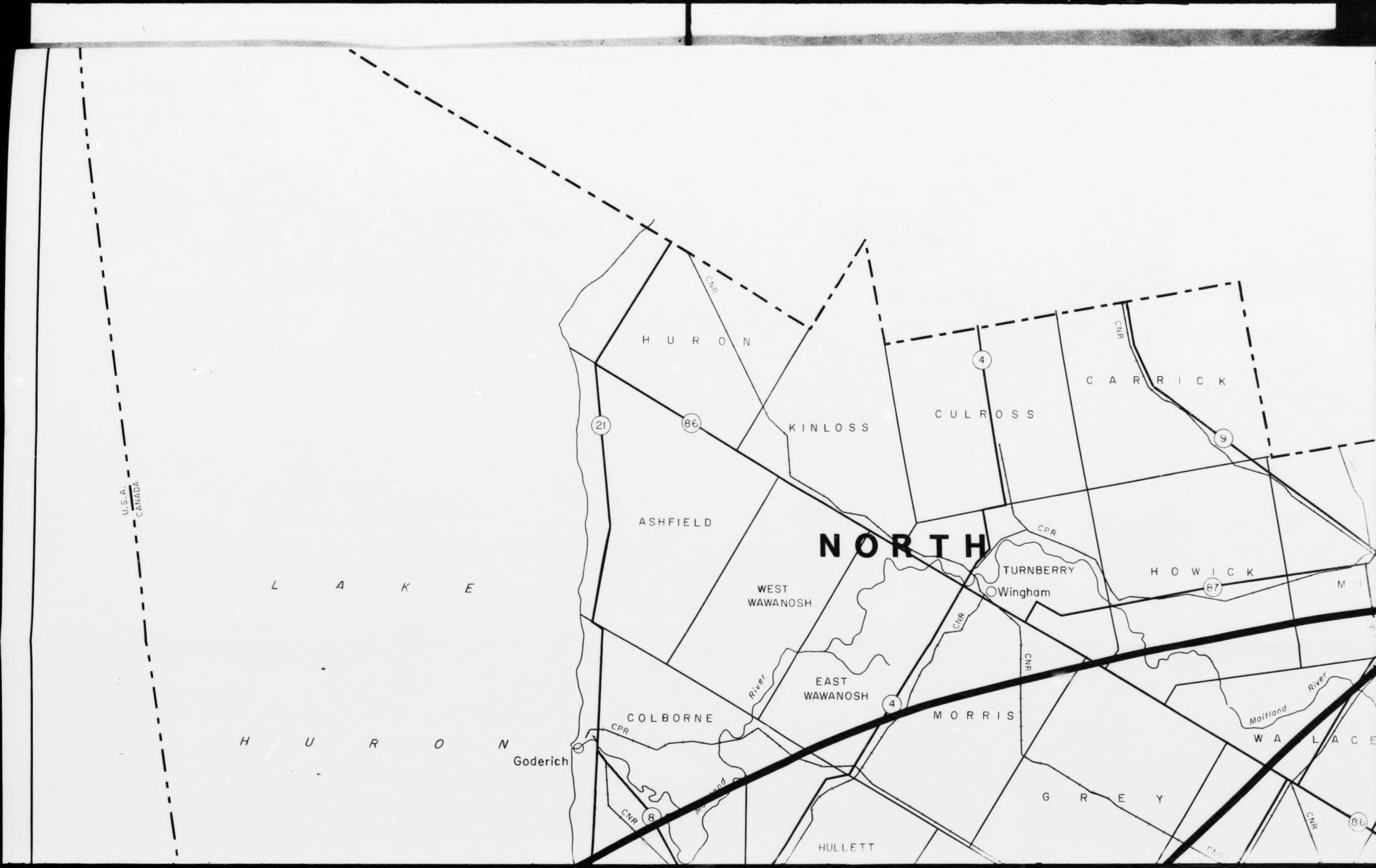
SOURCE AREAS

10 15 20 Kilometres
10 15 Miles

(2) Provincial Highway
Municipal Boundary

N

OWEN SOUND DISTRICT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CULROSS
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CARRICK
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NORTH
WEST
WAWANOSH
TURNBERRY
Wingham
HOWICK
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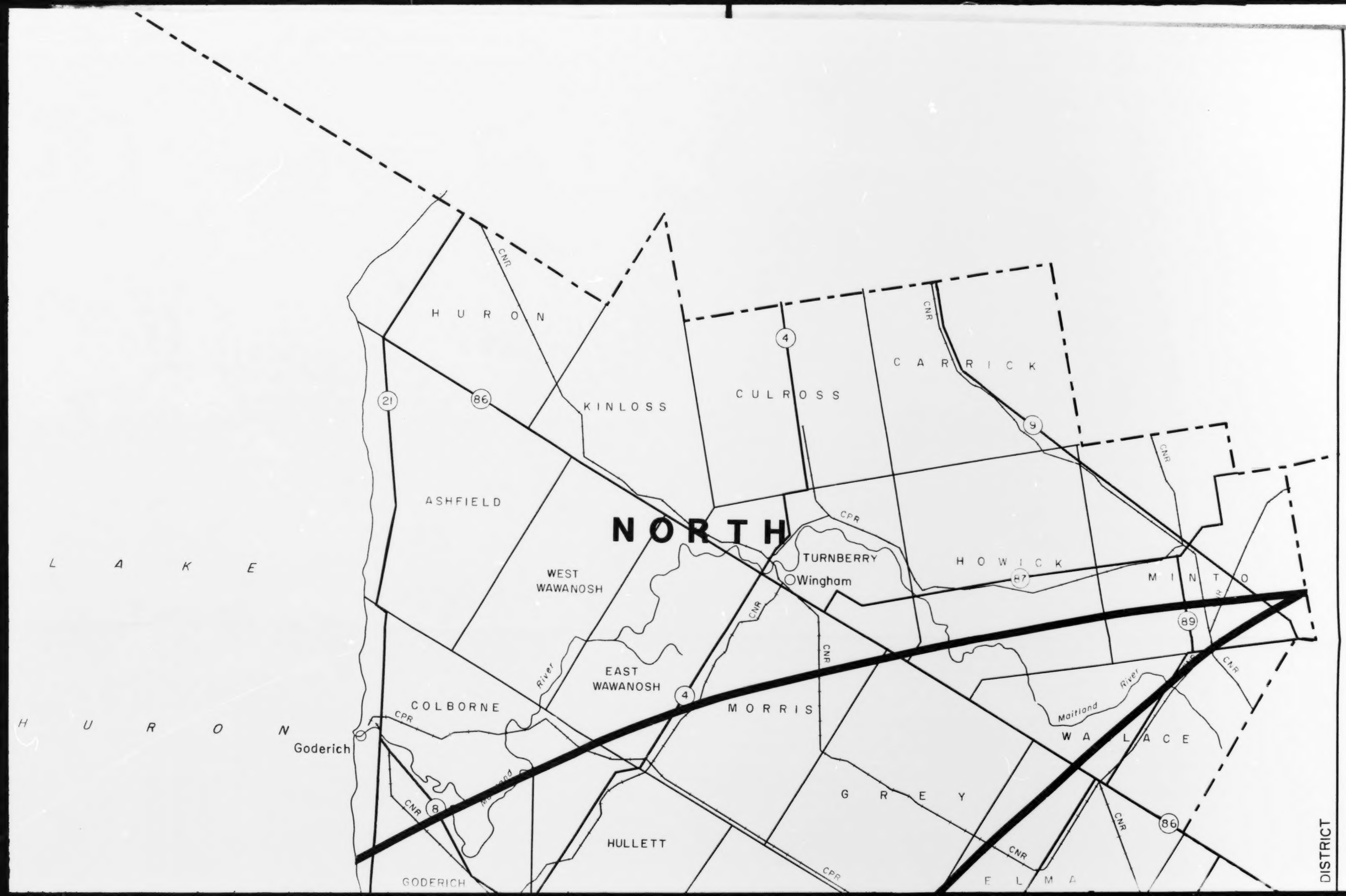
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DISTRICT

LAKE HURON

NORTH

WEST-CENTRAL

SOUTH EAST

WEST WAWANOSH

TURNBERRY

Wingham

HOWICK

MIN

EAST WAWANOSH

COLBORNE

Goderich

MORRIS

WALLACE

GREY

HULLETT

GODERICH

MCKILLOP

STANLEY

TUCKERSMITH

LOGAN

HIBBERT

ELLICE

HAY

FULLARTON

Stratford

NORTH EASTHOPE

USBORNE

DOWNIE

SOUTH EASTHOPE

STEPHEN

BLANSHARD

MORNINGTO

Maitland River

Avon River

CNR

CPR

4

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21

23

86

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L A K E

H U R O N

Goderich

NORTH

WEST - CENTRAL

SOUTH EAST

CAMBRIDGE DISTRICT

WEST WAWANOSH

EAST WAWANOSH

TURNBERRY

Wingham

HOWICK

MINTO

COLBORNE

MORRIS

WALLACE

GREY

HULLETT

GODERICH

ELMA

MORNINGTON

MCKILLOP

STANLEY

TUCKERSMITH

LOGAN

HIBBERT

ELLICE

HAY

FULLARTON

NORTH EASTHOPE

Stratford

USBORNE

DOWNIE

SOUTH EASTHOPE

STEPHEN

BLANSHARD

St.

Maitland River

Nine Mile River

Avon River

CPR

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NORTH AREA

General Description
- mixture of agricultural capability classes (1 through 6 and organic); mainly livestock operations with some cash crops
- considerable forest cover
- considerable aggregate resources
- mixture of cold water and cool water streams
- extensive wetlands
- major recreational resources include Lake Huron shore, Point Farms Provincial Park, Maitland River, conservation authority recreation areas, conservation authority and county agreement forests

Resource Management Guidelines
- encourage preservation of forest cover; improve woodlot management
- ensure identification and, where necessary, encourage protection of high potential aggregate resource areas
- maintain and enhance, and improve recreational access to cold water fisheries

WEST CENTRAL AREA

General Description
- agricultural capability classes 1 and 2 almost exclusively; mainly cash crops with some livestock operations
- moderate forest cover
- moderate aggregate resources
- mainly cool water streams
- a few significant wetlands
- major recreation resources include Lake Huron shore, Bayfield and Maitland Rivers, conservation authority recreation areas, conservation authority and county agreement forests

Resource Management Guidelines
- encourage preservation and expansion of forest cover; reforest idle farmland and improve woodlot management
- ensure identification and, where necessary, encourage protection of high potential aggregate resources areas
- maintain and enhance cold water fisheries; improve recreational access to cold water and cool-water fisheries

SOUTH EAST AREA

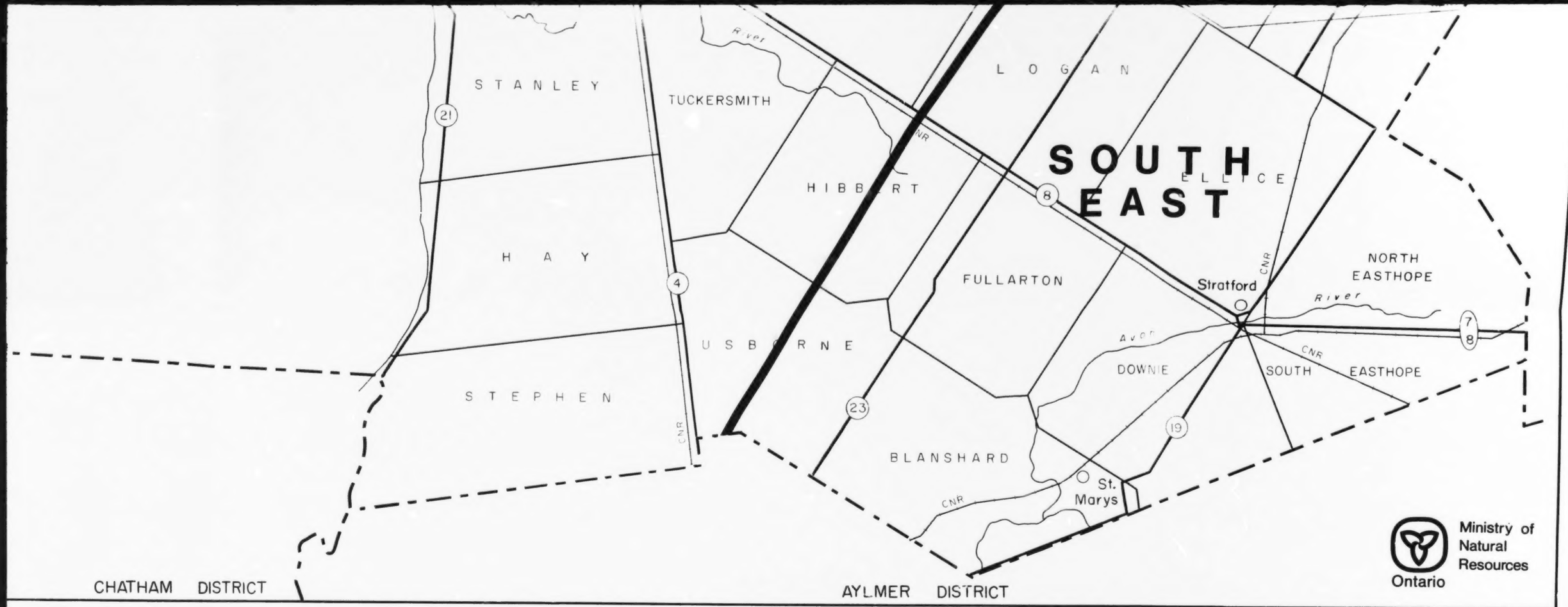
General Description
- agricultural capability classes 1 and 2 almost
- includes major urban area (Stratford)
- little forest cover
- poor aggregate resources
- all cool water streams
- a few significant wetlands
- major recreation resources include conserva ment forests

Resource Management Guidelines
- encourage preservation and expansion of for agricultural benefits of forest management
- ensure identification and, where necessary, source areas
- improve recreational access to cool water fis

LAKE HURON AREA

General Description
- home of commercial fishery
- critical to sports fishery
- major recreation resource

Resource Management Guidelines
- oil and gas exploration and development sub
- improve recreational access to migratory and and, where necessary, restore habitats critic cial fishing activity



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uron shore, Point Farms Provincial Park,
ation areas, conservation authority and

e woodlot management
ncourage protection of high potential ag-

al access to cold water fisheries

WEST CENTRAL AREA

General Description
- agricultural capability classes 1 and 2 almost exclusively; mainly cash crops with some livestock operations
- moderate forest cover
- moderate aggregate resources
- mainly cool water streams
- a few significant wetlands
- major recreation resources include Lake Huron shore, Bayfield and Maitland Rivers, conservation authority recreation areas, conservation authority and county agreement forests

Resource Management Guidelines
- encourage preservation and expansion of forest cover; reforest idle farmland and improve woodlot management
- ensure identification and, where necessary, encourage protection of high potential aggregate resources areas
- maintain and enhance cold water fisheries; improve recreational access to cold water and cool-water fisheries

SOUTH EAST AREA

General Description
- agricultural capability classes 1 and 2 almost exclusively; cash crops predominant
- includes major urban area (Stratford)
- little forest cover
- poor aggregate resources
- all cool water streams
- a few significant wetlands
- major recreation resources include conservation authority recreation areas and agreement forests

Resource Management Guidelines
- encourage preservation and expansion of forest cover; reforest idle farmland; emphasize agricultural benefits of forest management
- ensure identification and, where necessary, encourage protection of all aggregate resource areas
- improve recreational access to cool water fisheries

LAKE HURON AREA

General Description
- home of commercial fishery
- critical to sports fishery
- major recreation resource

Resource Management Guidelines
- oil and gas exploration and development subject to limitations of international agreement
- improve recreational access to migratory and Lake Huron resident sports fishery; protect and, where necessary, restore habitats critical to commercial fishery; manage commercial fishing activity

POOR

QUALITY

ORIGINAL